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ANNUAL CATALOG

UNIVERSITY OF KANSAS

1920-1921

Sections I, II and III

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THE

UNIVERSITY OF KANSAS

LAWRENCE

ERNEST H. LINDLEY, PH. D.
Chancellor

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NOV 10 1921

GENERAL INFORMATION

MARCH, 1921

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BOARD OF ADMINISTRATION.

Educational, Charitable, and Correctional Institutions.

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FOREWORD.

The annual catalog of the University of Kansas heretofore has contained about five hundred pages, and sometimes has proven confusing to persons who wish to see, at a glance, the essentials of the facilities, expenses, admission requirements, and description of courses offered by the institution. This has been true especially in the case of high-school young people who contemplate entering college. To meet the needs of those who may wish a briefer statement than that contained in a general catalog, the University of Kansas is issuing the current catalog in three sections. In Section I the reader will find, first, a brief statement concerning the government of the University, then, in order, a general account of the equipment, University organizations, admission requirements, examinations and reports of the various schools, fees and laboratory charges, living and rooming expenses, scholarships, etc., concluding with a brief survey of the scope and work of each School and Division.

Those who desire further information may send for Section II, devoted to description of courses, and Section III, containing a list of officers of instruction, register of degrees granted, and current rosters of students.

Copies of the three sections of the catalog are placed in the hands of superintendents and high-school principals of the state.

For other information address:

THE CHANCELLOR, OR
THE REGISTRAR,
LAWRENCE, KANSAS.

478031

UNIVERSITY CALENDAR.

Academic Year, 1920-'21.

January 1, Saturday—Close of Christmas recess.
January 24 to 29, Monday to Friday, inclusive—Semester examinations.
January 31, Monday—Beginning of second semester; enrollment in classes.
February 1, Tuesday—Beginning of class work in all departments.
February 22, Tuesday, Washington's birthday—Legal holiday.
March 25 to 28, Friday to Monday, inclusive—Easter recess.
March 29, Tuesday—Beginning of second half-semester.
May 30 to June 3, Monday to Friday, inclusive—Semester examinations.
June 5, Sunday, 8 p. m.—Baccalaureate sermon.
June 6, Monday, 8 p. m.—Sigma Xi address.
June 7, Tuesday, 10:30 a. m.—Alumni address.
June 7, Tuesday, 8 p. m.—Chancellor's reception.
June 8, Wednesday, 10 a. m.—Commencement exercises.
June 13, Monday—Beginning of six-weeks Summer Session.
July 25, Monday—Beginning of four-weeks Summer Session.

Academic Year, 1921-'22.

September 12, 13, 14, Monday, Tuesday, Wednesday—Entrance examinations and registration, Fall Session.
September 13, 14, Tuesday, Wednesday—Enrollment in classes.
September 15—Beginning of class work in all departments.
September 16, Friday—General assembly and annual address, at 10 a. m.
November 14, Monday—Beginning of second half-semester.
November 23 to 26, Wednesday to Saturday, inclusive—Thanksgiving recess, beginning Wednesday noon.
Christmas Recess—Saturday, December 17, to Saturday, December 31, inclusive.
January 23 to 27, Monday to Friday, inclusive—Semester examinations.
January 30, Monday—Beginning of second semester; enrollment in classes.
January 31, Tuesday—Beginning of class work in all departments.
February 22, Wednesday, Washington's birthday—Legal holiday.
April 4, Tuesday—Beginning of second half-semester.
April 14 to 17, Friday to Monday, inclusive—Easter recess.
May 29 to June 2, Monday to Friday, inclusive—Semester examinations.
June 4, Sunday, 8 p. m.—Baccalaureate sermon.
June 5, Monday, 8 p. m.—Phi Beta Kappa address.
June 6, Tuesday, 10:30 a. m.—Alumni address.
June 6, Tuesday, 8 p. m.—Chancellor's reception.
June 7, Wednesday, 10 a. m.—Commencement exercises.
June 12, Monday—Beginning of six-weeks Summer Session.
July 24, Monday—Beginning of four-weeks Summer Session.

CHRONOLOGICAL TABLE.

1855—(December). A university provided for in the first constitution of Kansas territory, at Topeka.
1857—(June). State University at Lawrence provided for by free-state legislature, Topeka.
(September). Seminary of learning provided for in Lecompton constitution.
1858—(April). System of public instruction, including a university department, provided for in Leavenworth constitution.
1859—(July). State University provided for as at present, in Wyandotte constitution, now the constitution of the state of Kansas.
1861—Congress set apart and reserved for the use and support of a State University seventy-two sections of land.
1863—Lawrence selected as location for the University of Kansas.
1864—The University organized by the legislature.
1865—March 21, first meeting of the Board of Regents.
1866—July 19, Regents elected the first Faculty of the University, consisting of Elial Jay Rice, A. M., David Hamilton Robinson, A. M., and Francis Huntington Snow, A. M.
North College erected.
September 12, first session of the University opened at North College.
1870—Department of Engineering organized.
1872—Fraser Hall erected and occupied.
1876—Normal Department established.
1877—Department of Music organized.
1878—Department of Law organized.
1883—Medical Hall (old Chemistry Building) erected.
1885—Department of Pharmacy established.
Normal Department discontinued.
1886—Snow Hall erected.
1891—The University reorganized; the Preparatory Department discontinued and the Schools of Arts, Engineering, Laws, Fine Arts, and Pharmacy established.
1894—Spooner Library erected.
Chancellor's residence erected.
1895—Blake Hall erected.
1896—The Graduate School established.
1899—The Fowler Shops erected.
The School of Medicine established.
1900—Chemistry and Pharmacy Building erected.
1902—Dyche Museum of Natural History erected.
1903—Summer Session established.
1904—The name of the School of Arts changed to the College of Liberal Arts and Sciences.
Green Hall erected.
1905—Full four-year course in medicine established.
Eleanor Taylor Bell Memorial Hospital erected.
1906—Robinson Auditorium-Gymnasium erected.
Clinical Laboratory erected.
Nurses' Training School established.
1907—Marvin Hall erected.
1908—Haworth Hall erected.
Power Plant and Laboratories erected.
1909—The School of Education established.
The Division of University Extension established.
1911—First wing of Administration Building erected.
State Hospital erected at Rosedale.
Clay-working Laboratory erected.
1915—Dispensary at Rosedale erected.
Oread Training School Building erected.
1916—Vivarium erected.
1918—West wing and portion of central section Administration Building erected.
1919—Observatory erected.
Reserve Officers' Training Corps established.

OFFICERS OF ADMINISTRATION.

THE UNIVERSITY.

ERNEST H. LINDLEY, Ph. D., Chancellor.
Room 103, Fraser Hall.
Hours: 10 a. m. to 12 m. and 2 to 4 p. m.

WILLIAM L. BURDICK, Ph. D., Vice President.
Room 206, Green Hall.
Hours: First semester, 11:30 a. m. to 12:30 p. m.; second semester, 9 to 10:30 a. m.

FREDERICK J. KELLY, Ph. D., Dean of Administration.
Room 119, Fraser Hall.
Hours: 10 a. m. to 12 m.

GEORGE O. FOSTER, A. B., Registrar.
Room 109, Fraser Hall.
Hours: 8 a. m. to 12 m. and 2 to 5 p. m.

ALBERTA L. CORBIN, Ph. D., Adviser of Women.
Room 114, Fraser Hall.
Hours: 9:30 to 11:30 a. m. and 2:30 to 4:30 p. m.

JOHN J. WHEELER, A. M., University Marshal.
Room 204, East Administration Building.
Hours: 9:30 a. m. to 12 m.

JOHN M. SHEA, Superintendent of Buildings and Grounds.
Room 201, Repair Shop.

THE SCHOOLS.

FRANK W. BLACKMAR, Ph. D., Dean of the Graduate School.
Room 101, East Administration Building.
Hours: 9:30 a. m. to 12 m.

JOSEPH G. BRANDT, Ph. D., Acting Dean of the College of Liberal Arts and Sciences.
Room 102, Fraser Hall.
Hours: 10:30 a. m. to 12 m.

PERLEY F. WALKER, M. M. E., Dean of the School of Engineering.
Room 112, Marvin Hall.
Hours: 9 a. m. to 12 m.

WILLIAM L. BURDICK, Ph. D., Chairman of Faculty, School of Law.
Dean's Office, Green Hall.

HAROLD L. BUTLER, A. B., Dean of the School of Fine Arts.
Room 111, Administration Building.
Hours: 9 a. m. to 12 m. and 2 to 5 p. m.

CARL A. PREYER, Mus. B., Associate Dean of the School of Fine Arts.
Room 113, Administration Building.

LUCIUS E. SAYRE, Ph. M., Dean of the School of Pharmacy.
Room 215, Chemistry and Pharmacy Building.
Hours: 10 to 11 a. m.

——, Dean of the School of Medicine.

MERVIN T. SUDLER, Ph. D., Associate Dean of the School of Medicine.
Tuesdays and Saturdays at Lawrence.
Mondays, Wednesdays, Thursdays and Fridays at Rosedale.

FREDERICK J. KELLY, Ph. D., Acting Dean of the School of Education.
Room 119, Fraser Hall.
Hours: 2 to 4 p. m.

THE DIVISIONS.

WILLIAM H. JOHNSON, A. M., Acting Director of Summer Session.
Room 121, Fraser Hall.
Hours: 11 a. m. to 12 m. and 3 to 4 p. m.

HAROLD G. INGHAM, A. B., Acting Director of University Extension.
Room 117, Fraser Hall.
Hours: 8 a. m. to 12 m. and 2 to 5 p. m.

FORREST C. ALLEN, D. O., Director of Athletics.
Room 203, Robinson Gymnasium.
Hours: 10 a. m. to 12 m.

———, Director of Libraries.

ERNEST H. LINDLEY, Ph. D., *ex officio* Director of Museums.
Room 103, Fraser Hall.
Hours: 10 a. m. to 12 m. and 2 to 4 p. m.

ARVIN S. OLIN, LL. D., Director of University Publications.

———, Director of State Service Work.

———, Director of University Surveys.

ARTHUR T. WALKER, Ph. D., Director of Vocations.
Room 112, East Administration Building.
Hours: 11:30 a. m. to 12:30 p. m. and 2:30 to 3:20 p. m.

THE UNIVERSITY OF KANSAS.

GOVERNMENT OF THE UNIVERSITY.

THE BOARD OF ADMINISTRATION.

By act of the legislature of 1917, the State Board of Administration consists of the governor, who acts *ex officio* as chairman, three members appointed by the governor, and a business manager chosen by the board. This board has full power to administer the affairs of the University, subject only to legislative enactments. The term of office is four years.

THE UNIVERSITY SENATE.

The University Senate consists of the chancellor, the deans and directors of divisions, and all members of the instructional staff having the rank of professor or associate professor. The chancellor is *ex officio* chairman and executive officer of the Senate.

THE FACULTIES OF THE UNIVERSITY.

The faculty of each school consists of the chancellor, the dean, and all professors, associate professors, assistant professors and instructors giving work in that school. The chancellor is chairman of each faculty. The dean of each school is its executive officer.

DEPARTMENTAL FACULTIES.

A departmental staff consists of all members of its instructional force. It has jurisdiction over all matters which concern primarily its own internal policy.

UNIVERSITY DIVISION COMMITTEES.

A university division is a body having relations with more than one of the schools or departments of the University. The divisions are administered by committees, subject to the general regulations of the Senate. Each division has an executive officer, called the director.

EQUIPMENT OF THE UNIVERSITY.

PROPERTY AND INCOME.

The University owns equipment, buildings and grounds of an estimated value of $2,500,000. It receives in normal years about $135,000 from fees and $8,500 from the land fund. For the biennium of 1921-1922 the state has appropriated $3,419,000, including $1,290,000 for buildings.

THE CAMPUS.

The campus, comprising some 160 acres of hill slope, is of marked natural beauty and provides for the probable increase of the University in a far-sighted way. The buildings follow the curve of the hill and overlook the Kaw river valley to the north and east and the beautiful Wakarusa valley to the south.

The campus of the Medical School at Rosedale also lies high and is capable of artistic development.

BUILDINGS.

There are twenty-three University buildings, of which seventeen were erected by the state and six by private gift.

LABORATORIES AND CLASSROOMS.

There are 154 separate and distinct lecture, laboratory, class and research rooms in connection with the various schools and departments of the University. The laboratories are equipped with the latest and highest-grade apparatus for thorough technical and scientific research study.

LIBRARIES.

The libraries of the University contain 140,110 bound volumes and some 45,000 pamphlets, in addition to a great number of unbound serials and unclassified pamphlets. Working collections are placed in departmental reading rooms, of which seven are in the main library and nine are attached to their respective departments or schools.

MUSEUMS.

The museums of the University contain large and valuable scientific, classical and art collections of incalculable worth to the student for instruction and investigation. The specimens and works of art are valued at over $300,000.

UNIVERSITY ORGANIZATIONS.

GENERAL.

The Alumni Association is composed of all persons holding degrees granted by the University, though active membership is limited to those who pay annual dues. An associate membership is for such former students of the University, not graduates, as pay the associate membership dues. A general secretary is employed, whose office is at the University and who has charge of the publications of the association, and keeps, so far as possible, a complete record of facts concerning the alumni. The regular meetings of the association occur during commencement week of each year.

The present secretary of the association is Alfred G. Hill, A. B., '18.

The Graduate Club meets once a month. Its interests are social, literary, and scientific.

University Women's Association. The University Women's Association is composed of the women connected with the University as instructors, librarians, or officials, and the wives of instructors.

Women's Student Government Association. All women by registration in the University become members of this organization. The purpose of the organization, as stated in the constitution, is "to foster among the women a feeling of mutual responsibility and a high regard for both liberty and order, to maintain high standards of living and scholarship, and to promote loyalty to the University.

The Men's Student Council is made up of representatives of the men students of the University. The purpose of the Council is to reflect the student sentiment in all matters whatsoever of concern to the students of the University.

RELIGIOUS.

Young Men's Christian Association. This organization is interdenominational in character. The association aims to give all men students opportunity for religious activity in the hope of giving them training for service in Christian and welfare work after graduation.

Every fall, during the opening week of school, all possible help is given new students in securing rooms and employment; an information bureau assists them with the many problems and questions that arise for new students as they enter the University. A handbook, distributed to all, is a most popular and helpful feature; it contains valuable information for prospective students.

Address all correspondence to the General Secretary, University Y. M. C. A., Lawrence, Kan.

Young Women's Christian Association. This is an organization of University women, with a permanent sustaining membership of Faculty women and alumnæ. During the opening week of the fall term members of the association assist freshman girls in registering and finding classrooms and rooming and boarding places.

Information concerning employment for girls may be obtained by applying to the general secretary.

The Christian Church Bible Chair. April 1, 1901, the Women's Board of Missions of the Christian Church established a chair of Biblical instruction. Myers Hall, erected at a cost of $40,000, affords commodious lecture rooms and offices, an assembly room seating five hundred, a library and museum of missions.

There is no organic relation between the Bible chair and the University. The privileges are offered to all students, and the instruction is nonsectarian. The purpose of the work is to give students a more intimate acquaintance with the Bible, and to render them assistance in their religious life.

A library of 1,500 volumes on Bible study, missions, religion, Christian sociology, the Sunday school, and related subjects, is accessible to all.

The present occupant of the chair is Arthur Braden, A. B. (Hiram College), graduate of Auburn, N. Y., Theological Seminary, Ph. D. (Syracuse University).

Westminster Association. In 1905 the Presbyterians of Kansas organized Westminster Association for the purpose of offering Biblical instruction to all students and affording pastoral care for Presbyterian students of the University. On October 7, 1910, Westminster Hall, the gift of W. W. Cockins, of Lawrence, was dedicated. The hall is well adapted to class work, and also affords a center for the social life of the students. Rev. J. W. Boyer, A. B. (Westminster College), B. D. (Theological Seminary, Louisville, Ky.), A. M. (University of Louisville), Presbyterian University pastor.

There is no organic connection with the University. The teaching is nonsectarian and without charge. All students are welcome to the social life of the hall.

All correspondence relative to the work of the Westminster Association should be addressed to Rev. J. W. Boyer, 1221 Oread, Lawrence, Kan.

City Churches. The churches of Lawrence unite in extending to the University students a cordial invitation to enter with them into Christian fellowship, and endeavor to make them feel that, irrespective of church membership, they are welcome to all the privileges which the church affords.

LITERARY.

The Phi Beta Kappa Society. The Kansas Alpha Chapter of this society was organized in 1890. The object of the society is, primarily, the promotion of scholarship in the University. To this end, a portion of the members of the graduating class of the College, never to exceed one-sixth, who have made high records of scholarship in their University studies, are elected to membership.

German Club. The membership of this club, which meets once in two weeks, consists of such students as have made sufficient progress in German to take active part in the programs.

The Quill Club is the parent chapter of an intercollegiate organization of students and instructors especially interested in literary activities and literary criticism.

The Associated Journalism Students are organized for the purpose of bringing in speakers from the ranks of active journalists, and in general of working for the advancement of the Department of Journalism.

The English Club is composed of the instructors and advanced students in the Department of English, and meets bimonthly.

The French Club. The instructors and students in the French Department compose the Cercle Français, which meets once a week to present a brief literary program, reviews of articles in the leading French magazines, and reports on French topics.

The Greek Symposium consists of the instructors and students of the Greek Department, who meet once a month for the reading of papers and discussion of topics which are either too general or too special for class work.

The Spanish Club. The Ateneo has been formed on the same general lines as the French Club for those students who wish to acquire facility in the use of spoken Spanish.

SCIENTIFIC.

The Sigma Xi Society. The Iota chapter of this honorary scientific society was established at the University in 1890. The society confers the honor of election to membership upon instructors and students who have shown special aptitude along scientific lines, especially with regard to research work.

The Chemical Club is composed of the instructors and advanced students in the Department of Chemistry, and chemical engineers.

Civil Engineering Society. This is maintained by students, under the guidance of the instructors in the department.

University of Kansas Branch of the American Institute of Electrical Engineers. This is composed of instructors and students who are associated members or student members of the national organization.

University of Kansas Student Section of the American Society of Mechanical Engineers. This is essentially a student organization, under the supervision of an instructor who is a member of the national society.

Affiliated Students' Society of the American Institute of Mining Engineers. This is a society composed of junior and senior students and instructors in the department, which enjoys the advantage of association with the institute.

The Architectural Society is a student organization including students in both architecture and architectural engineering, under the super-

vision of the head of the department, who is a member of the American Institute of Architects.

The Botany Club is composed of instructors and students of the Department of Botany.

The Snow Zoology Club is composed of instructors and advanced students of the department.

The Mathematical Club is an organization of advanced students of the Department of Mathematics, with one Faculty member elected by them as their official adviser.

The Entomology Club is composed of instructors and advanced students of the Department of Entomology.

The Home Economics Club meets once a month. Its membership is elective.

The Geology Club is composed of mining students and such College students as specialize in geology.

The Pharmaceutical Society holds bimonthly meetings for the study of subjects especially related to the art of pharmacy. Its membership is drawn from students, Faculty, and alumni of the School of Pharmacy.

DEBATING.

Debating Council. The Debating Council is made up of six members of the Faculty, appointed by the chancellor of the University, and two representatives from each of the two debating societies and the honorary debating fraternity. The Council has general supervision over all preliminary and interstate debates.

CIVIC.

The Jurisprudence Club meets every three weeks for the discussion of general questions of current interest. Its membership is elective.

The International Polity Club is an organization of men students who are interested in the study and discussion of international problems. Any student is eligible for election.

The Woman's Forum meets twice a month to discuss public questions. Membership is informal, and the meetings are open to all women of the University.

DRAMATIC.

Dramatic Club. The students of the University maintain a dramatic club for the study and presentation of modern plays. Membership in the club is open to all students and is secured by try-outs held at stated periods.

MUSICAL.

For information concerning orchestra, band and glee clubs, see pages 52 and 53.

PUBLIC OCCASIONS.

Convocation. At the opening of the fall semester, and frequently during the year, convocations of the Faculty and student body are held. The purpose of these meetings is to bring together all members of the University for instruction as well as for the development of a common spirit.

Vesper Services. Religious exercises are held occasionally at 4:30 Sunday afternoons. They are in charge of the Y. M. C. A. and the

Y. W. C. A. The service is largely musical, though an address is often given.

University Lectures. Whenever circumstances make them available, men of recognized standing in any field of science or art are secured to give addresses at the University.

University Concerts. The University supports a series of concerts given by artists and organizations of the highest standing.

ADMISSION REQUIREMENTS.

ADMISSION TO REGULAR STANDING.

The requirements for admission of graduates of Kansas high schools to the various schools of the University have been fixed by legislative enactment, which, by section 8875, General Statutes of 1915, provides that:

"Any person who shall complete a four-year course of study in any high school accredited by the State Board of Education shall be entitled to admission to the Freshman class of the State University, the State Agricultural College, or any of the State Normal Schools, on presenting a statement containing a transcript of his high-school record, signed by the principal of the school, and certifying that such person has satisfactorily completed said course of study."

For the guidance of prospective students who do not come under the provisions of the law, and who desire to prepare themselves for admission to any of the schools of the University, statements of entrance requirements in detail will be found on the following pages.

Meaning of the Unit.

A unit is understood to mean the credit given for the satisfactory completion of the study of any subject requiring preparation outside of the recitation, with five recitations a week for a full school year of not less than thirty-six weeks and with recitation periods as best suited to the needs of the pupils.

In the case of scientific branches requiring laboratory practice there should be not less than two double periods of laboratory practice each week.

In penmanship, typewriting, manual training, sewing, cooking, drawing, music, and other subjects not requiring previous study in preparation for a recitation, a unit of credit requires a course of daily exercises with double periods extending through an academic year. Half units of credit should be given for each semester's work completed.

Elective Subjects.

In order to avoid a scattering of effort and to secure the advantage of working in accordance with a well-ordered plan, it is recommended that each student should select his eight elective subjects so as to secure three units of credit in at least one subject besides English and two units in some additional subject. This will prevent the choice of electives in a haphazard way and will provide for a certain minimum amount of continuous work in definite lines, while at the same time sufficient freedom of choice is allowed to satisfy individual preference.

Entrance Examinations.

Candidates for admission who are not graduates of accredited Kansas high schools may offer themselves for examination in subjects required for admission.

These examinations will be given only during the first and the last week of the first semester and the last week of the second semester. Applications should be made to the Committee on Entrance Examinations, room 202, Blake Hall, by the Friday preceding, and should give the applicant's name, Lawrence address, and telephone number.

THE GRADUATE SCHOOL.

Admission to the Graduate School ordinarily is granted to graduates of this University holding the bachelor's degree, and to graduates of other colleges and universities of good standing on presentation of proper evidence of scholarship and testimonials of good character. Students desiring to enter the Graduate School should first apply to the dean for instruction, and subsequently to the registrar for registration.

COLLEGE OF LIBERAL ARTS AND SCIENCES.

Candidates for admission who are not graduates of accredited Kansas high schools must offer, either on examination or satisfactory certificate, fifteen units from the following list:

ENGLISH.—Rhetoric and English literature, 3 or 4 units. Three units required.

MATHEMATICS.—Elementary algebra, 1½ units; plane geometry, 1 unit; solid geometry, ½ unit; plane trigonometry, ½ unit; advanced algebra, ½ unit. Elementary algebra and plane geometry are required.

FOREIGN LANGUAGE.—Latin, 1, 2, 3 or 4 units; Greek, 1, 2, 3 or 4 units; German, 1, 2, 3 or 4 units; French, 1, 2, 3 or 4 units; Spanish, 1 or 2 units. Three units in one language or two units in one language and one unit in another, are recommended.

SCIENCES.—Elementary science, 1 or ½ unit; Physical geography, 1 or ½ unit; physics, 1 unit; chemistry, 1 unit. Botany, 1 unit; zoölogy, 1 unit; physiology, 1 or ½ unit; biological science, 1 unit. One unit required, exclusive of physical geography and physiology and elementary general science.

HISTORY AND SOCIAL SCIENCE.—Greek and Roman history, 1 unit; medieval and modern history, 1 unit; English history, 1 unit; American history, 1 unit; economics, 1 or ½ unit; civics, ½ unit; citizenship, ½ unit. One unit required.

MISCELLANEOUS.—Psychology, ½ unit; methods of teaching and school management, ½ unit; commercial law, ½ unit; bookkeeping, ½ unit; drawing, 1 unit; woodwork, 1 unit; forging, 1 unit; domestic science, 1 unit; domestic art, 1 unit; agriculture, ½ or 1 unit; music, 1 unit. Not more than three units are accepted.

Any candidate from another state will be accepted on certificate, provided he is eligible to admission to the state university in that state, and provided he has completed the subjects required for graduation from an accredited Kansas high school.

SCHOOL OF ENGINEERING.

For the guidance of prospective students who desire to prepare themselves without graduating from accredited high schools, an outline of preparatory studies which has been followed for many years is given below. A total of fifteen units must be offered for admission.

ENGLISH.—Rhetoric and English literature, 3 or 4 units. Three units required.

MATHEMATICS.—Elementary algebra, 1½ units; plane geometry, 1 unit; solid geometry, ½ unit; plane trigonometry, ½ unit; advanced algebra, ½ unit. Three units required to prepare for the regular engineering courses.

FOREIGN LANGUAGES.—Latin, 1, 2, 3, or 4 units; Greek, 1, 2, 3, or 4 units; German, 1, 2, 3, or 4 units; French, 1, 2, 3, or 4 units; Spanish, 1 or 2 units. Two units at entrance and ten hours of German, French, or Spanish in the University complete the requirements for graduation.

PHYSICAL SCIENCES.—Physical Geography, 1 or ½ unit; physics, 1 unit; chemistry, 1 unit. One unit required.

BIOLOGICAL SCIENCES.—Botany, 1 unit; zoölogy, 1 unit; physiology, 1 or ½ unit; biological science, 1 unit.

HISTORY AND SOCIAL SCIENCE.—Greek and Roman history, 1 unit; medieval and modern history, 1 unit; English history, 1 unit; American history, 1 unit; economics, 1 or ½ unit; civics, ½ unit. Three units recommended.

MANUAL TRAINING.—Woodwork, forging, and machine tool work, 2 units; freehand or mechanical drawing, 1 unit.

MISCELLANEOUS.—Stenography, ½ unit; bookkeeping, ½ unit; commercial law, ½ unit; commercial geography, ½ unit; agriculture, ½ or 1 unit; psychology, ½ unit; advanced arithmetic if taken after one year of algebra, ½ unit. Not more than two units are allowed.

SCHOOL OF FINE ARTS.

For admission to the courses leading to a degree, a public-school-music certificate or a public-school-art certificate, the requirements are the same as for admission to the College.

For admission to the course leading to a three-year teacher's certificate in piano, voice, violin, organ, design, or drawing and painting, the requirements are twelve academic units of high-school work.

All music students, except special students, must also meet the following additional requirements in music:

A four-year preparatory course in piano for students in piano and organ.

One year of a two-year preparatory vocal course for students in voice, in addition to one year of the four-year preparatory course in piano.

A three-year preparatory course in violin for students in violin.

Schools or teachers who prepare students for entrance to the School of Fine Arts may secure in detail a statement of the work to be covered in the above preparatory courses by addressing the dean of the School of Fine Arts.

SCHOOL OF LAW.

Beginning with the academic year of 1921-'22, that is, in September, 1921, sixty hours credit in the College of Liberal Arts and Sciences of the University of Kansas, or its equivalent in some other university or approved college, in addition to graduation from a four-year high school, will be required for entrance to the School of Law.

This credit may be proved by proper certificate of the authorities of the university or college where the work was done, or it may be obtained by examination.

SCHOOL OF PHARMACY.

Candidates for admission to the two- three- and four-year courses must comply with the requirements for admission to the College.

THE SCHOOL OF MEDICINE.

For entrance in the School of Medicine a student must have completed sixty hours (two years) of work in the College of Liberal Arts and Sciences of the University of Kansas, or work equivalent thereto.

The student who has completed the first two years of college work in another school, and who desires to enter the Medical School, should send a certified transcript of his work to the secretary of the committee on advanced standing, or the registrar of the University. A rating will then be given on this work, showing the exact terms on which he will be admitted.

Students who do not meet the requirements will not be enrolled as medical students. College students, however, may enroll in certain medical courses recognized by the College.

The two years' preliminary college work must include the following:

English	5 hours.
Chemistry	10 hours.
Physics	8 hours.
Biology	10 hours.
Modern Language	10 hours.

The minimum requirement in chemistry is general and qualitative chemistry, but the student is strongly advised to include in his preliminary work a course in qualitative analysis. If time permits, some

work in quantitative analysis should be done, as it affords an excellent preparation for physiological chemistry.

The physics requirements include at least eight hours of college physics. Courses 5*a* and 5*b* are highly recommended.

The minimum requirement in biology is zoölogy 3 and five hours selected from botany 3, zoölogy 1, 2 and 57. The course in parasitology (zoölogy 57) is strongly recommended as a premedical study because of the unusual opportunity it affords the student of becoming familiar with the animal parasites which infest man.

Of the modern languages French and German are particularly urged on account of the wealth of medical literature in these languages.

Students who, for a year or more, discontinue their studies in the School of Medicine, may, upon resuming their studies, be required to fulfill the requirements, both medical and premedical, that apply to the class which they propose to enter.

After January 1, 1922, admission to the clinical branches will be denied those students whose work for the first three and one-half years of the combined College and medical course falls below the average requirement for the degree of Bachelor of Science in Medicine.

For the rest of the two years' college work, courses in psychology, history and economics are advised, in order to give the student as broad a foundation as possible for his technical studies in the Medical School.

High school pupils who anticipate the study of medicine are strongly urged to include in their high school subjects, A, two units of Latin (Elementary Grammar and Cæsar, since this is required in some states of candidates for medical registration); B, two or three units of modern language, preferably French or German (this will decrease the amount of modern language required in college and thus give opportunity of other elective); C, one unit each of physics and chemistry with laboratory work; D, one and one-half units of algebra and one-half unit of trigonometry (if not presented for entrance, it must be taken in college as a prerequisite for college physics).

The group and percentage grade requirements in the College must be fulfilled. The above-named courses, as a rule, fit in with these group requirements. *Every prospective medical student is urged to consult the associate dean or the secretary or any member of the committee on entrance and advanced standing of the School of Medicine in regard to this preparatory work.*

TRAINING SCHOOL FOR NURSES.

Women of good character over twenty years of age are eligible for admission. Those with a high-school education are given preference. It is understood that they must spend a probationary period of three months in the school, during which time they will receive board, laundry, and lodging, but no other compensation, and that they agree to remain in the school, unless dismissed, the full term of three years.

The didactic instruction begins October 1, and ends June 1 of each year, but students are admitted at any time when there is a vacancy.

Those who wish to enter the school must make formal application to the supervisor of nurses of the Bell Memorial Hospital, Rosedale. With this application should be sent letters giving educational advantages and a statement as to character and health. These letters should be preferably from an instructor and a medical attendant.

Advanced Standing. Candidates for advanced standing must satisfy the requirements for admission and also show that they have had the work already done by the class to which they wish admission. An official statement of character and ability from the training school giving the previous work will be required. There will be required also a probationary period, and they will be required to pass an examination on the work for which they seek credit.

SCHOOL OF EDUCATION.

For admission to all the courses in education (except courses 1 and 2 which are open to sophomores) the completion of an approved four-year high-school course and at least sixty credit hours of college work in institutions approved by the University are required. This college work must include general psychology and should include the other special college courses listed for freshmen and sophomores in the curriculum which the student expects to follow in the School of Education.

THE SUMMER SESSION.

The classes of the Summer Session are open to all who can satisfy the instructors that their preparation is sufficient to enable them to do the work properly; that is, a student may register in the Summer Session and attend its classes without meeting the requirements for admission which are in force during the regular session, and without paying the ten-dollar matriculation fee which is required of all who enter a regular session for the first time. Record of credits will be kept on file but will not be applied toward any degree until the matriculation fee has been paid.

ADMISSION TO SPECIAL STANDING.

Opportunity is given in the various schools of the University for the admission of persons of mature years who desire to pursue some special lines of work without following any prescribed course of study or becoming candidates for a degree.

The admission of such special students is directly under the control of the dean or faculty committee of the respective school, whose certificate of acceptance must be presented to the registrar before registration. Applicants for admission as special students must present satisfactory evidence of proper preparation for the courses desired.

Special students are subject to the same regulations as are regular students with regard to the quality of work performed and attendance at recitations and examinations, but not as to the minimum number of hours to be taken in regular courses.

If a special student later becomes a candidate for a degree, the credits he has received while enrolled as a special student will not be allowed to count towards this degree, except by the approval of the Faculty. In no case may a student be granted a degree until he has been enrolled for one year as a regular student.

Anyone regularly enrolled in one school of the University may be admitted as a special student to another school, but all applications for such enrollment must be accompanied by the recommendation of the dean of the school concerned.

ADMISSION TO ADVANCED STANDING.

The regulations governing admission to advanced standing in the schools of the University are administered by a committee of the University Senate, which examines into the merits of each case presented to it, and either credits the applicant with a certain rank or recommends him to the heads of departments for advanced credit or examination.

Application for advanced standing should be made as early as possible. Students who expect to present credits for advanced standing will save much time and annoyance for themselves if they will forward their credentials as early as possible to the secretary of the Advanced Stand-

ing Committee. These credentials must include official transcripts of preparatory school records and college records, and a certificate of honorable dismissal from the college or university attended. The Advanced Standing Committee can furnish no estimate of advanced standing credit to prospective students unless the credentials indicated are sent to the committee. The committee cannot consider applications for advanced standing which are made later than thirty days after matriculation.

If the applicant for advanced standing should be required to take an examination in any subject which he presents for advanced standing credit, this examination must be taken not later than the sixth week of his first semester in the University.

No advanced standing credit will be given for work done during a four-year course of study in a high school, academy, or preparatory school.

The maximum advanced standing credit for work done in a junior college is sixty hours. *In no case will work done in a junior college be credited as work of the junior or senior year in the University.*

Advanced standing credit is entirely provisional and may be withdrawn in whole or in part if the subsequent record of the student in the University shows that his scholarship and attainments do not justify the credits given at the time of his entrance. This provisional advanced standing rating will not become permanent nor be entered upon the books of the University until the student, by the successful completion of a year's work, has satisfied the dean of the school concerned that his rating is justified.

All inquiries and correspondence concerning advanced standing should be addressed to E. F. Engel, secretary Advanced Standing Committee, University of Kansas, Lawrence.

REGISTRATION.

All candidates for admission having certificates from accredited schools and all students of the University intending to pursue their studies during the ensuing year must present themselves for registration at the University on September 12, 13, 14, 1921. *Registration at a later date will be permitted only on the payment of a fee of one dollar.*

ENROLLMENT.

After registration has been completed with the registrar and fees have been paid, students should apply to the dean of the school to which they desire admission for enrollment in their classes. Enrollment the first semester occurs September 13, 14, 1921, and on the first day of the second semester. *Enrollment at a later date will be permitted only on the payment of a fee of one dollar.*

EXAMINATIONS AND REPORTS.

Final Examinations are held for all students during the last week of each semester.

Special Examinations will be given only during examination weeks and during the opening week of the fall semester. All requests for special examinations must be approved by the dean of the school in which credit is desired.

Dismissal. Absence from examination or failure in more than one-third of his work in any one semester severs a student's connection with the University.

Withdrawals. A student may be withdrawn from a class by the dean, with the consent of his instructor. Honorable withdrawals will be permitted only when the student's work in the subject is of passing grade.

Whenever a student is failing in part of his work the dean may, at his discretion, withdraw him from one or more of the classes in which he is failing and give him a failure in such subjects.

Grades. The letter A is reserved for work of marked excellence, and indicates high honor. The letter B indicates very good work, of much more than average quality. The letter C indicates that the work has been of good average character, better than that which deserves merely to pass. The letter D indicates work the lowest in quality that would enable a student to pursue, without undue lack of material or of method, the next dependent course, whether the latter be in the same department or in a related department. The letter I indicates that work is incomplete. The letter F indicates failure.

Incomplete and Failure. The work of a student who fails to appear for final examination is graded I or F, according as his class standing has been of passing grade or below passing grade. Work that has been of passing quality, some part of which is for good reason unfinished, is also graded I.

Grade I may be removed by special examination, but unless properly removed before the beginning of the corresponding semester of the following year it becomes a failure, and the student must reënroll in the course.

Grade F may be removed only by such reënrollment.

Inadequate Preparation. When students show by their current work insufficient entrance preparation in any study they may be required to make good such deficiency in any manner prescribed by their instructors.

EXPENSES OF STUDENTS.

FEES.

Students are required to pay general fees as scheduled below. In all cases the matriculation fee is paid but once—at the time the student first registers in any school of the University, and is never refunded. The incidental fee is payable each year. By provision of the Board of Administration, all incidental fees of $30 or less are payable in full at time of registration; all fees over $30 may be paid in equal installments each semester. In case of withdrawal from the University, if applied for before the end of the first week after the date set for close of regular enrollment, the student may be refunded in full the incidental fee paid, or in case of withdrawal not later than the end of the semester only one-half of the fee paid may be claimed.

The schedule of fees is as follows:

A fee of $6 annually is required of each student to cover the expense of maintaining the general health of the University body.

Late registration and late enrollment in class each require a fee of $1.

College of Liberal Arts and Sciences.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	20.00
for nonresidents	30.00
Graduation fee, at graduation	10.00

School of Engineering.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	20.00
for nonresidents	30.00
Graduation fee, at graduation	10.00

School of Law.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	35.00
for nonresidents	45.00
Graduation fee, at graduation	10.00

School of Pharmacy.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	35.00
for nonresidents	45.00
Graduation fee, at graduation	10.00

Students taking the regular four years in pharmacy are registered during the first two years in both the School of Pharmacy and the College of Liberal Arts and Sciences, and may pay the College incidental fee so long as their work is confined to courses offered in the College.

School of Medicine.

FIRST TWO YEARS.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	35.00
for nonresidents	45.00
Graduation fee, at graduation	10.00
Microscope fee	6.00

During the first year of the regular four years in medicine students are registered in both the School of Medicine and the College of Liberal Arts and Sciences, and will pay the College incidental fee. During the succeeding years they will pay the incidental fee of the School of Medicine.

A student taking two-thirds or more of his work in the School of Pharmacy or the School of Medicine is considered a student of that school in which he takes the work, and will be required to pay the regular tuition in full: $35 for residents of the state, and $45 for nonresidents. This applies in particular to all College students who elect the major part of their work in the School of Pharmacy or the School of Medicine.

A student who is enrolled for less than two-thirds of his work in either school will be required to pay, in addition to the regular incidental fee required by the College, a pro rata professional school incidental fee of fifty cents for each hour in which he is enrolled. This has special application to College students who are taking the major part of their work in the College and have paid the incidental fee required by the College but who desire to elect certain courses in the School of Pharmacy or the School of Medicine.

THIRD AND FOURTH YEARS.

Students who register in the departments at Rosedale, not having been previously enrolled as students of the University of Kansas, are required to pay the regular matriculation fee—for residents of Kansas, $10; for nonresidents, $15.

In addition to the matriculation fee each student pays $100 for each school year, $50 at the opening of each semester. This amount includes the incidental fees of $35 and $45 per annum required by law, and fees to meet, in part, the necessary hospital and clinical expenses.

Students will also be required to rent a microscope ($3 per semester) and to pay the actual cost of materials and apparatus of every kind consumed, wasted, lost, or broken. A stock room is provided where students may purchase any additional material needed, or they may secure the same, if they prefer, in the open market, provided the form and grade of such articles are approved by the instructor in charge.

Graduate School.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	20.00
for nonresidents	30.00
Diploma fee for each degree	10.00

Summer Session.

Incidental fee, for residents of the state (6 or 10 weeks)	$10.00
for nonresidents	15.00
for 4-weeks session, one-half of the above.	

School of Education.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Incidental fee, for residents of the state	20.00
for nonresidents	30.00
Graduation fee, at graduation	10.00

School of Fine Arts.

Matriculation fee, for residents of the state	$10.00
for nonresidents	15.00
Graduation fee, at graduation	10.00

The instructors in the School of Fine Arts receive compensation from the state for part of the work of the courses; the remainder must be paid for at rates indicated below.

If the student withdraws before the middle of the quarter, one-half of the tuition fee will be refunded. Should he withdraw after the middle of the quarter, no part of the tuition fee will be refunded. Should the student be withdrawn at any time on account of unsatisfactory work, no part of the tuition fee will be refunded. Only special students receive lessons during the week of the semiannual examinations.

All bills are payable quarterly in advance, and enrollment in classes will be permitted only upon the presentation of the treasurer's receipt for the quarter's tuition.

RATES FOR REGULAR STUDENTS.

The following rates are for the quarter of nine weeks, and, with the exception of the work in public-school music or drawing and painting, are based on two half-hour private lessons a week in the major study, together with class work in harmony, music history, sight singing and ear training, etc., and all studies in the College or the School of Education:

FIRST YEAR.

Piano, per quarter, lessons with Miss Greisinger, Miss Sweeney, Mr. Soderlund or Miss Ford	$27.50
Voice, per quarter, lessons with Miss Lazelle or Miss Haseltine	27.50
Voice, per quarter, Dean Butler, Professor Downing or Professor Smith	33.50
Violin, per quarter	27.50
Drawing and painting, per quarter	15.00
Design, per quarter	15.00
Public-school art, per quarter	10.00
Public-school music, per quarter	10.00

SECOND YEAR.

Rates the same as for the first year.

THIRD YEAR.

Piano, per quarter, Professor Preyer	$40.00
Piano, per quarter, with other teachers	33.50
Organ, per quarter	33.50
Voice, per quarter	33.50
Violin, per quarter	33.50
Design, per quarter	15.00
Painting, per quarter	15.00

FOURTH YEAR.

All courses leading to degrees, free to Kansas students.

To receive free tuition in the fourth year, students must be of full senior rank in all required subjects and must have been in attendance at the School of Fine Arts for at least two years.

For nonresidents the fees are the same as for the third year.

For all certificate courses the same as for the third year.

RATES FOR SPECIAL STUDENTS.

The following rates are for the quarter of nine weeks, and cover only the subjects given:

Piano with Professor Preyer, two a week	$36.00
Piano with Professor Preyer, one a week	20.00
Piano with Miss Greisinger, Miss Sweeney, or Mr. Soderlund, one a week	21.00
Piano with Miss Greisinger, Miss Sweeney, or Mr. Soderlund, one a week	11.00
Piano with Miss Ford, two a week	17.00
Piano with Miss Ford, one a week	9.00
Voice with Dean Butler, Professor Downing or Professor Smith, two a week	36.00
Voice with Dean Butler, Professor Downing or Professor Smith, one a week	20.00
Voice with Miss Lazelle, two a week	30.00
Voice with Miss Lazelle, one a week	16.00

Voice with Miss Hazeltine, two a week	$21.00
Voice with Miss Haseltine, one a week	11.00
Organ with Professor Skilton, two a week	36.00
Organ with Professor Skilton, one a week	20.00
Organ with Mr. Soderlund, two a week	21.00
Organ with Mr. Soderlund, one a week	11.00
Violin with Professor Kendrie, two a week	30.00
Violin with Professor Kendrie, one a week	16.00
Harp with Mrs. Peck, one a week	20.00
Harp with Mrs. Peck, two a week	36.00
Band instruments with Mr. Herb, one a week	11.00
Band instruments with Mr. Herb, two a week	21.00
To regular members of the University Band or Orchestra:	
Band instruments with Mr. Herb, one a week	8.50
Band instruments with Mr. Herb, two a week	16.00
Drawing, painting or design, in class	15.00
Drawing, painting or design, in class (part time)	7.50
Public-school drawing and painting, in class	10.00
Harmony, counterpoint, composition, in class, two a week	10.00
Sight singing, ear training and dictation, two a week, in class	5.00
Ensemble in class	3.00
Public-school music courses, in class. (Private lessons are subject to special fees.)	10.00
Public-school music courses, in class (to students already enrolled in another regular music course)	5.00
Teaching materials, piano (with practice teaching)	3.00
Teaching materials, violin (with practice teaching)	3.00
Violin in class for public-school music students	3.00
Rent of violin, bow and case	1.50

PIANO RENTAL.

One hour daily for nine weeks	2.50

ORGAN RENTAL.

(A two-manual pedal organ.)

One hour daily for nine weeks	5.00

HARP RENTAL.

(A standard concert harp.)

One hour daily, for nine weeks	11.00

Correspondence Department.

The cost of correspondence instruction for residents of Kansas is an incidental fee of $15 a year, and $20 for nonresidents. For this amount the student is entitled to tuition for a calendar year, and during that period he may carry two courses at a time, a course being each separately numbered and listed branch. The incidental fee must be paid each year that the student reënrolls for study. If a correspondence student should later come into residence at the University he would then be required to pay the required matriculation fee.

Laboratory and Shop Fees. Students are required to pay the actual cost of material of all kinds used in laboratories and shops. In some departments a definite fee to cover cost of materials in a given course is fixed prior to the opening of each term. Such fees are payable at the office of the chief clerk at the time of enrollment, and before beginning the student secures, at cost, material and apparatus as needed.

Books and Outfit. All necessary textbooks, drawing outfits, apparatus, dissecting material, chemicals, etc., are extra, and must be procured by the student. The student also pays postage on lessons one way.

Payments. The incidental fee may be paid in monthly installments of five dollars when the student finds it necessary. In this plan the general rule of payment in advance applies. No extra charge is exacted for a course where payments are made by installments. *But in every case at least five dollars of the required fees must accompany the application.*

How to Remit. Money should be sent in the form of postal or express money order, or Kansas City or Chicago draft, made payable to the University of Kansas. Mail to the University Extension Division, Lawrence, Kan.

LABORATORY AND SHOP FEES.

Announcements of laboratory and shop fees will be found under such courses as require them. (See Section II.)

Materials of every kind consumed, wasted, lost or broken in the manifold experiments and practice work in laboratories and shops must be paid for by the student.

In some departments a definite fee to cover cost of materials in a given course is fixed prior to the opening of each term. Such fees are payable at the Business office at the time of enrollment and before beginning work in such course. A student, who for any reason is obliged to drop work in any laboratory course before completion, may receive a rebate of such portion of the fee as shall be determined by the head of the department concerned to be due him.

Other departments maintain storerooms, from which the student secures, at cost, material and apparatus as needed, giving coupons in payment. These coupons are sold at the Business office in books of one, two and five dollars, and are accepted in all laboratories and shops maintaining such storerooms. Any coupons unused are redeemed in cash at the Business office when the student has completed the course and checked in his individual equipment. Coupons issued during any school year, however, will not be good beyond the close of that school year.

All the laboratories and shops of the University, and their equipment of desks, tables, balances, microscopes, instruments, models and other apparatus, engines, machinery and power for their operation are at the disposal of students, under the direction of their instructors. These desks, tables and benches will be further provided with individual sets of tools, working apparatus and equipment. At the end of the course, or earlier, at the discretion of the instructor, all the individual equipment in good order must be returned. Such as may have been lost, damaged, broken or destroyed by the student must be paid for by him at that time.

LIVING EXPENSES.

Information concerning actual cost of attending the University was obtained recently by a survey of that phase of student life. Through a questionnaire sent out to the student body and answered by a sufficient number of students to make conclusions definite and accurate, the information tabulated below was obtained. It must be remembered that living expenses for some time have been abnormally high and everything points to a definite reduction in prices soon. The 1921 legislature made provision for cafeteria service, beginning in September, under direction of the University, which means an opportunity for students to obtain wholesome food practically at cost.

The figures given below cover the *average* expense of students included in the survey. The money spent by many students was much less than the figures given, while others spent much more.

Board, per week	$6.67
Extra meals (outside of boarding house, per week	1.31
Room rent, per month	9.88
Laundry, per month (many students send their laundry home by parcel post)	2.87
Clothing, per year	153.68
Railroad fare, per year	43.25
Religious activities, per year	11.42
Student activities, per year	10.04
Lectures, recitals, etc., per year	6.81
Medical attention, per year	8.33
Charity per year,	8.23
Books, laboratory and other fees, per year	45.00
Miscellaneous (unnecessary), per year—parties, movies, confections, etc.	182.69

This totals $865 for the school year of thirty-six weeks.

EARNING EXPENSE MONEY WHILE A STUDENT.

The survey referred to above shows that the sources of students' incomes for expenses are as follows:

32.51% of the students reporting, from personal savings.
7.99% of the students reporting, from borrowed money.
16.99% of the students reporting, from earnings while in the University.
42.81% of the students reporting, from parents and relatives.

The University, through the Young Men's and the Young Women's Christian associations, maintains an employment bureau. The secretaries of these associations may be addressed by students desiring employment.

Students should not undertake a large amount of outside work and endeavor at the same time to carry full work in their University studies. Three hours per week of energetic, efficient work in classroom, study, library or laboratory should be given for every semester hour for which the student is enrolled. That is, the student who is enrolled for fifteen semester hours of work should give to those studies a minimum of forty-five hours per week of vigorous, intensive application. While it has been done, it is extremely inadvisable for a student to earn his entire expenses while a student in the University. It is a far better plan to drop out of the University for a year to earn expense money for another year of study, and repeat the process until graduation.

ROOMING HOUSES.

Approved Rooming Houses for Men. Lists may be had from the Registrar, or the Secretary of the University Y. M. C. A., on application.

Approved Rooming Houses for Women. The University attempts to secure the best housing conditions available for its women students, through a committee under whose direction a list of rooming houses for women is prepared each year. The sanitary and social conditions of each house are investigated before it is placed on the approved list. Students are expected to room only in houses that are on this list. This list, together with regulations governing rooming places, may be had from the Adviser of Women. By action of the Board of Administration, occupancy of rooms by women students shall be subject at all times to the approval of the Adviser of Women; further, women students are not permitted to lodge in houses in which men also lodge, unless for special reasons the rule is waived by the Adviser. The University expects students to keep their rooms for at least one semester or to make changes only on recommendation of the Adviser.

House Customs. The following customs have been adopted by the women of the University as organized in the Women's Student Government Association:

I. Rooming houses for women should be closed not later than 10 p. m. every night in the week, except when entertainments of general interest are held, and on Friday and Saturday nights, when the closing hour is 11.

II. Students' parties should be held on Friday or Saturday nights, or on nights preceding holidays, and on holidays.

III. Social engagements should not be made for the evenings of school days, except on Friday evenings, or on evenings preceding holidays, and on holidays.

DORMITORIES FOR WOMEN.

The 1921 legislature appropriated $500,000 for dormitories to be erected at the state educational institutions, for women students. It is the purpose to build two during the 1921-1922 biennium at institutions to be determined by the State Board of Administration.

STUDENT HEALTH.

The University Health Service has been established for the purpose of safeguarding the health of students. To accomplish this, its activities are carried on along three general lines: education, through lectures, publications and exhibits; sanitation, through supervising the students' environment both on and off the campus; and personal examination and advice.

Thorough physical examinations will be made of all students entering the University. The result of each examination is recorded and serves as a basis in determining the nature of exercise which the department of physical education will assign to the student.

PRIZES AND AIDS.

The William J. Bryan Prize is derived from the income of $250 which was presented to the University by Mr. Bryan in 1898, upon the condition that the proceeds should be used for "a prize for the best essay discussing the principles which underlie our form of government." The prize is offered in alternate years. The details of the contest are intrusted by the faculty of the College to a special committee.

The Hattie Elizabeth Lewis Memorial Prizes were established in 1911, in memory of Hattie Elizabeth Lewis, a former student of the University. They are open to all students of the University, and have since 1911 been given annually for the best essays on some phase of the general theme, "The Application of the Teachings of Jesus to the Practical Affairs and Relations of Life." They have amounted to $250 annually.

The Thayer Prize for Architectural Design is derived from the income of $1,000, presented by Mrs. Wm. B. Thayer, and awarded under conditions determined by the faculty of the department.

University Fellowships to the number of sixteen have been established for graduates of the University of Kansas and of other recognized colleges and universities who have distinguished themselves for scholarship. These fellowships are of $300 each.

University Fellowships for Graduates of Kansas Colleges, eleven in number, are offered yearly. These fellowships also amount to $300 each, and one is offered to each of eleven Kansas colleges chosen from year to year by the administrative committee of the Graduate School.

The Charles S. Griffin Memorial Scholarship was established by Mrs. Mary Griffin, in memory of her son. The interest on $1,000 is awarded annually to a student of the College.

The Marcella Howland Memorial Scholarship of ninety dollars was established by Mrs. Marcia Brown Howland, in memory of her daughter. It is open to young women of the junior and senior classes in the College.

The Frances Schlegel Carruth Scholarship in German was established in memory of Frances Schlegel Carruth. It is a freshman scholarship of one hundred dollars, awarded to the graduate of the Lawrence high school who passes the best examination in two years' entrance German.

The Women's Student Government Association Scholarship of fifty dollars is open to young women of the freshman class for use in the sophomore year.

The University Women's Association Scholarship of one hundred dollars is open to women students.

The Eliza Matheson Innes Memorial Scholarship of one hundred dollars was established by Mr. George Innes in memory of his wife. It is open to women students of the College above the freshman year, or to women students of the Graduate School.

The Caroline Mumford Winston Memorial Scholarship of fifty dollars was established by Mr. Thomas Winston, in memory of his wife. It is open to women students of the College above the freshman year, or to women students of the Graduate School.

The Kansas Branch of the Association of Collegiate Alumnæ has established a scholarship of one hundred dollars. It is open to women students of the College above the freshman year, or to women students of the Graduate School.

The Lucinda Smith Buchan Memorial Scholarship was established in memory of Lucinda Smith, A. B., 1890, by the alumnæ members of the Pi Beta Phi Sorority. It is a loan of two hundred dollars for two years without interest, open to the young women of the junior and senior classes in the College.

The Frank Egbert Bryant Memorial Scholarship of seventy-five dollars is open to women students of the College.

The Max Lowell Brown Memorial Scholarship, established in 1921 by Mrs. Lillie E. Brown, in memory of her son who gave his life in the World War. A loan of $50 without interest to a prospective Freshman recommended by a high-school principal as worthy and in need of financial assistance.

The Mrs. J. B. Watkins Scholarship of seventy-five dollars is awarded to young women of the freshman class.

George Innes offers a fifty dollar scholarship for the benefit of a music student in the School of Fine Arts.

The David and Rebecca Harvey Memorial Scholarship of fifty dollars, established by their sons, Dr. F. D. G. Harvey, Mr. Sherman A. Harvey and Mr. Edward S. Harvey for the benefit of a colored student above the freshman year.

The Prince Hall Grand Chapter of the Eastern Star Scholarship of fifty dollars, open to colored women students above the freshman year.

Mrs. John T. Stewart has established two scholarships of fifty dollars each in the School of Fine Arts, one for the benefit of a sophomore music student and the other for the benefit of an art student.

Mayor George L. Kreeck offers a scholarship of fifty dollars for the benefit of a music student in the School of Fine Arts.

The Music Department of the School of Fine Arts offers two scholarships, one for the benefit of a freshman music student and the other for the benefit of a sophomore music student.

The Drawing and Painting Department of the School of Fine Arts offers a scholarship for the benefit of an art student.

The Daughters of the American Revolution Scholarship was established by the Betty Washington Chapter of the Daughters of the American Revolution. It is a loan of one hundred dollars without interest for three years after graduation, and open to young women of the senior class.

The Student Loan Fund was established in July, 1894, by the graduating class in College and Engineering of that year. It has increased through donations from subsequent classes and from private individuals until it amounts to about $4,000. By the terms of the gift sums not to

exceed $100 may be loaned on bankable notes at four per cent interest to students above the freshman year.

The James L. Mead Loan Fund of $5,000 is held in trust on the same terms as those under which the student loan fund is operated.

The Marvin Memorial Loan Fund was established by Mrs. F. O. Marvin, widow of Dean F. O. Marvin, who until his death in 1915 was at the head of the School of Engineering. The fund now amounts to $500. Loans are made to engineering students under conditions determined by the dean of the school.

The May Stephens Green Loan Fund of $5,000, established by the will of the late Dean James Woods Green in honor of his wife, is held in trust and administered by the Student Loan Committee under terms set forth in the will.

The Augusta Carlson Memorial Student Loan Fund of $100 has been established by the teachers of Marshall county, Kansas, in memory of Augusta Carlson, a teacher in the schools of that county for more than thirty years.

The Scope and Work of the Various Schools and Divisions of the University.

THE GRADUATE SCHOOL.

The Graduate School was organized in 1896-'97, for the purpose of giving opportunity to students to pursue advanced work, and to encourage independent and scientific investigation. Courses of study for advanced degrees are offered in all of the schools of the University, nearly every department being represented.

Admission Requirements. See page 16.

ADVANCED DEGREES.

Through the Graduate School all the advanced degrees of the University are granted. Degrees granted are as follows:

Academic Degrees: Master of arts, master of science, doctor of philosophy.

Professional Degrees: Civil engineer, mechanical engineer, mining engineer, chemical engineer, electrical engineer, master of science in education, master of music.

The Requirements for the Degrees of Master of Arts and Master of Science.

After registration the candidate for the master's degree must select the department in which his major work is to be done. The head of that department, after consultation with him, will approve the course of study selected, which may be confined to the department of the major study, or may be selected from that of not more than two other departments.

The degree of master of science or master of arts will be granted only after at least one full year of resident graduate work. The candidates must have completed with high credit thirty hours of work chosen from the courses open to graduates, published in Section II of the Catalog, or approved by the departments concerned and the Administrative Committee. Not more than sixteen hours credit can be given in one semester.

Ordinarily each candidate for the master's degree is required to present a thesis to the head of the major department. The thesis must embody the results of scholarly research on some topic connected with the candidate's major study. In special cases, where it seems advisable for the candidate to devote all of his time to regular class work, not involving research, on the recommendation of the head of the department and the consent of the dean, the requirement for a thesis may be waived.

Engineering Degrees.

Graduates in engineering in this University, and masters of science who have received their degrees through the Graduate Faculty, having majored in engineering, are eligible to the professional degree of civil engineer, electrical engineer, mechanical engineer, engineer of mines, or chemical engineer, which ever is appropriate to the undergraduate courses taken. Candidates for these degrees must have spent at least three years of actual time in professional practice, in positions of responsibility, in design, construction or operation of engineering works, and must furnish detailed and satisfactory evidence as to the nature and extent of this practice.

Each candidate must submit an engineering thesis, accompanied by detailed explanations, drawings, specifications, estimates, etc., and embodying the results of their own work or observation. If approved, the thesis and all accompanying material become the property of the University.

All theses for professional degrees must be delivered to the dean of the School of Engineering on or before the 15th day of May preceding the June commencement.

Degree of Master of Music.

Candidates for this degree must be graduates of the School of Fine Arts or of some other school requiring a like amount of work. After graduation candidates must have spent at least two years in their profession as concert artists, composer or teacher, and must furnish detailed and satisfactory evidence as to the nature and extent of this work.

The candidate must spend at least one year in graduate work at the University. Of the total of thirty credit hours, not less than ten hours shall be in his major subject, and not less than six hours in a minor music subject. Work on the thesis must credit not less than four hours.

All theses for this degree must be delivered to the dean of the School of Fine Arts on or before May 15.

Degree of Master of Science in Education.

Persons receiving the degree of bachelor of science in education may become candidates for the degree of master of science in education. This is granted not only to students specializing in education, but also to certain students who desire to specialize in the teaching of particular subjects and who wish to relate their master's thesis to this type of education; that is, in the preparation for this degree, under certain conditions, students may major in other departments than education.

Doctor of Philosophy.

The degree of doctor of philosophy will be granted for advanced scholarship, and the performance of independent work in some special line, under the following conditions:

1. The candidate must be a baccalaureate graduate of some college or university of good standing; and he must give satisfactory evidence to the Faculty of the Graduate School that he possesses an adequate preparation for graduate work.

2. He must make application to the dean of the Graduate School before the first day of October preceding the commencement at which he intends to present himself for the degree, and must then give satisfactory evidence of his ability to read such German and French, or two other foreign languages substituted therefor, as may be necessary for the proper prosecution of his studies.

3. He must have spent at least three full college years in resident graduate work at this or some other approved university, the last year of which he must have spent as a resident student of this University. The time spent in attaining the degree of A. M. may be counted toward satisfying this time condition.

4. He must present a thesis showing the result of original research of a high moral character, and must pass acceptable examinations, both written and oral, in one chief or major study and two allied, subsidiary or minor studies, not more than two of which may be in the same department. The oral examination is given before the faculty of the Graduate School, where the candidate may be required to defend his thesis. This thesis, embodying the results of original research in some subject connected with his major study, must be presented to the head of the department in which the work was done, not later than the first of May preceding the commencement at which the degree is to be conferred, and if approved by him it is placed on file for inspection in the office of the

dean of the Graduate School for at least two weeks. If the thesis is finally approved, the candidate must, before receiving the degree, deliver at least fifty printed copies of it to the librarian of the University, or give proper security for the printing of that number; but if the thesis has already been printed, ten copies only need be deposited with the librarian.

UNIVERSITY FELLOWSHIPS.

General Fellowships.

For the encouragement of advanced study and research, the University of Kansas has established fifteen fellowships for graduates of special merit. Each fellowship entitles the holder to $350. Fellows are expected to devote their time to investigation and research leading to an advanced degree, except that they may be required to give not exceeding six hours of educational service per week in the department in which they are assigned. These fellowships are awarded to graduates of the University of Kansas, and of other colleges and universities of good standing, who have distinguished themselves for special scholarship and marked ability.

For the year 1921-'22 these fellowships may be awarded to the best qualified candidates applying in one of the departments enumerated below.

Fellowships for Graduates of Kansas Colleges.

In order to promote advanced study at the University of Kansas, and to encourage the graduates of Kansas colleges and universities to continue their work, the University of Kansas offers one fellowship of $350 to each of ten Kansas colleges.

Candidates for fellowships are to be nominated by the faculties of the respective colleges, from the classes graduating in June before the September when they are to enter upon their fellowships. However, in case there are no satisfactory candidates in the classes referred to, candidates may be nominated from other graduating classes. It is understood that the candidate shall be from among those attaining high scholarship in their respective classes.

Departments and Equipment.

The following departments offer graduate work in the University. In the majority of them the facilities are adequate for thorough preparation for the doctor's degree, and in all of them the facilities are excellent for work leading to the master's degree. All the courses named are equipped for graduate instruction. Laboratories and libraries are ample for this purpose. Especial opportunity is given for research and original investigation.

Anatomy.
Ancient Languages.
Bacteriology.
Bacteriology and Pathology.
Biochemistry.
Botany.
Chemistry.
Economics and Commerce.
Education.
Engineering, Industrial.
Engineering, Mechanics.
Engineering, Civil.
Engineering, Electrical.
Engineering, Mining.
Engineering, Mechanical.
English Language and Literature.
Entomology.
Fine Arts.
Geology and Mineralogy.
Germanic Languages and Literatures.
Hispanic Languages and Literatures.
History and Political Science.
Home Economics.
Journalism.
Law.
Mathematics.
Pharmaceutical Chemistry.
Philosophy and Psychology.
Physics and Astronomy.
Physiology and Pharmacology.
Romance Languages and Literatures.
Sociology.
Zoölogy.

THE COLLEGE OF LIBERAL ARTS AND SCIENCES.

The College was the first school of the University to be organized. From its opening in 1866 it has offered to its students four years of liberal training, leaving in the main the development of the applied arts and sciences to the professional schools that have grown up around it.

Admission Requirements. See page 16.

Registration and Enrollment. See page 20.

Special Students. See page 19.

Examinations and Reports. See page 20.

Fees. See page 22.

DEGREES.

Graduates of the College who have completed the regular College course are admitted to the degree of *bachelor of arts*, except that, upon request, any candidate who has met the requirements for that degree will be admitted to the degree of *bachelor of science* instead; provided, the larger part of his work has been elected in science departments; and provided further, his application has the sanction of the department in which his major work has been done. Those who have completed two years of College work and two years in the School of Medicine are admitted to the degree of bachelor of science in medicine.

EXTENSION DIVISION CREDITS.

College students may offer towards the degree not to exceed sixty hours of credit received for work done in the Extension Division, but such credits will not be placed on their College record until thirty hours have been completed in residence.

All regulations governing the election of courses and final residence must have been observed by the candidates for the degree.

ADVISERS.

Each student is assigned to a member of the faculty as his personal adviser, who will assist him in the selection of courses, the arrangement of his schedule, and any other matters upon which he may need assistance or advice. The faculty adviser is the assistant and representative of the dean of the College, who is charged with the execution of all rules relating to enrollment.

COMPLETION OF REQUIREMENTS.

A student may not be enrolled in any subject in advance of any other which, for any reason, he has yet to take, and which is listed in the schedule.

A student desiring enrollment in courses which presupposes certain subjects which he has not completed in the preparatory school must first make good such preliminary training within a high school or under a tutor authorized by the department concerned.

Students who have already decided to enter teaching after graduation

should make that fact known so that they may be advised in the selection of their courses during the freshman and sophomore as well as the junior and senior years by faculty members designated for that purpose.

THE CREDIT HOUR.

For each credit hour of any course in the College the student is expected to devote himself for three hours, either in the classroom, laboratory, or outside preparation.

THE CURRICULUM.

DEPARTMENTS OFFERING COURSES IN THE COLLEGE.

Group.	*Department.*
I. *English.*	English Language and Literature. Journalism. Public Speaking.
II. *Ancient Language.*	Ancient Languages and Literatures.
III. *Modern Language.*	Germanic Language and Literature. Romance Languages and Literatures. Hispanic Languages and Literatures.
IV. *Mathematics.*	Mathematics.
V. *Physical Science.*	Chemistry. Physics and Astronomy. Geology and Mineralogy.
VI. *Biological Science.*	Botany. Zoölogy. Entomology. Physiology. Bacteriology. Biochemistry. Anatomy.
VII. *History.*	History and Political Science. Economics and Commerce. Sociology.
VIII. *Philosophy.*	Philosophy and Psychology.
IX. *Miscellaneous.*	Home Economics. Physical Education. Design. Music.
X. *Professional.* (See below, "College Credit for Professional Courses.")	Law (thirty hours, open to College Seniors). Medicine. (See Medicine, page 24.) Engineering (fifteen hours, open to College students). Education (fifteen hours in addition to senior teaching, open to College students). Fine Arts (fifteen hours, open to College juniors and seniors). Military Science (fifteen hours, open to College students). Pharmacy (fifteen hours, open to College juniors and seniors).

REGULATIONS GOVERNING THE ELECTION OF COURSES.

In the choice of courses from these groups and departments the student must conform to the following regulations:

Freshman-Sophomore Requirements. During the first semester every freshman must attend a weekly lecture on hygiene, and spend three

hours a week in the gymnasium. During the second semester he must spend three hours a week in the gymnasium.

During the entire year every sophomore must spend two hours a week in the gymnasium.

Before the beginning of the junior year the student must have completed sixty hours, chosen from the list of courses open to freshmen and sophomores in accordance with the following requirements:

a. At least five hours must be taken from each of six of the first eight groups.

b. Not more than twenty hours may be taken in one department.

c. Rhetoric, five hours, must be taken by all freshmen not offering it as a fourth year of entrance English. Credits for rhetoric are given provisionally. (See announcement of course, Section II.)

d. Freshmen and sophomores *may not carry more than ten hours* in one group at one time.

Junior-Senior Requirements. The work of the junior and senior years must include a minimum of sixty hours, chosen from the courses offered by the various departments, but not more than twenty hours may be in courses open to either freshmen or sophomores.

Juniors and seniors may carry *not more than twelve hours* in one group at one time.

THE LAST THIRTY HOURS MUST BE DONE IN RESIDENCE.

Major Requirements. Before graduation the student must complete a major course of not less than twenty hours nor more than forty hours in one department, and not less than thirty hours nor more than sixty hours in the group including the major department. At least twelve hours of work in satisfaction of the department major requirements must be in courses not open to freshmen or sophomores.

THE COURSES CONSTITUTING A DEPARTMENTAL MAJOR MUST BE CHOSEN UNDER THE SUPERVISION OF THE FACULTY OF THE DEPARTMENT CONCERNED.

In the selection of a major the School of Medicine is considered a department.

Free Electives. The work required for graduation not included in the major course is to be chosen subject to the restrictions that not more than twenty-five hours may be in any department, and not more than forty hours may be in any group other than the one in which the major course is elected.

Rule for Students Having Advanced Credits. Students who have been granted advanced credits shall so select their studies that in the one hundred twenty hours offered for the degree the regulations governing the distribution of work shall be satisfied so far as possible; provided, that advanced credit in excess of the maximum prescribed for majors and minors may be granted the candidate at the time of his matriculation. Students admitted to junior standing with a deficiency must meet the requirements respecting studies of the first two years only to the extent of their deficiency.

Amount of Work to be Carried at One Time. The normal minimums and the absolute maximums for the several classes are as follows: Freshmen: minimum, twelve academic units; maximum, sixteen. Sophomores: minimum, twelve; maximum, seventeen. Juniors and seniors: minimum, twelve; maximum, eighteen. When the past record or current work of a student indicates that he is unable to carry advantageously the amount of work permitted by the above regulation, he may be limited in his enrollment to such extent as may be considered advisable in his case. The faculty urges students to confine themselves to the average number of fifteen hours of class work, and thus devote four full years

to the completion of their undergraduate work. Experience has shown that the crowding of the undergraduate courses results in serious loss in the quality of the work accomplished.

Duplication of Courses. No course may be chosen which substantially duplicates work for which credit has already been granted, either in the College or preparatory school.

Amount of Work Required for Graduation. In order to be an applicant for a degree from the College of Liberal Arts and Sciences a student must complete 120 hours of class work, in addition to required hygiene in the freshman year and required gymnasium work in the freshman and sophomore years.

Student's Responsibility. THE INDIVIDUAL STUDENT WILL BE HELD RESPONSIBLE FOR THE ELECTION OF HIS COURSES IN CONFORMITY WITH THE PRECEDING REGULATIONS.

Proportion of High Grades Required for Degree. In order to be accepted as a candidate for the bachelor's degree, a student must have received a grade of A, B, C, 1 or 2 in at least 90 of the 120 hours offered for the A. B. degree or of the number of hours required for the degree of A. B. or B. S. in medicine. Any student admitted to advanced standing will be accepted as a candidate for a degree, provided his credits offered for graduation conform to the foregoing regulations and provided he receives A, B, C, 1 or 2 on three-fourths of the work which he has done in residence at the University of Kansas.

COLLEGE CREDIT FOR PROFESSIONAL COURSES.

Juniors and seniors in the College are permitted to enroll in certain courses offered in the professional schools and count credit received for such work towards the bachelor of arts degree, with the provision that the total number of hours of such credit shall not exceed fifteen. This limitation to fifteen hours credit does not apply, however, in the case of students who become candidates for professional degrees in schools which have an arrangement with the College for a combined six-year course for securing both College and professional degrees. The maximum amount of credit which may be thus secured by College students from any single school, where choice of professional work is restricted to that school, is indicated below. Students desiring to avail themselves of this opportunity must register in the professional school, as well as in the College, but in enrollment the regulations of the College Faculty governing quantity and character of courses elected must be observed.

College students who have attained at least full senior standing may offer in satisfaction of all or part of the requirements of the senior year the entire first year of the law curriculum. To such students the College will grant the degree of Bachelor or Arts. To secure this privilege of offering law work towards the College degree, a student must have spent one full year in residence at the College before entering upon his law studies. He must also register in the College, as well as in the School of Law, and be subject to such general regulations of the College Faculty as govern other seniors.

Whenever a student has completed the law work, in accordance with the foregoing provision, the dean of the School of Law will submit to the dean of the College a certified statement of the fact, accompanied by the recommendation of the faculty of the School of Law, that such student be admitted to the degree of Bachelor of Arts. The name of the candidate will then be sent to the College Faculty as that of a candidate for that degree.

This agreement between the College and the Law School is to become effective when the Law School puts into force the regulation requiring two years of College work for entrance.

It is understood between the schools that in no case can a student count more than thirty hours of professional credit towards the A. B. degree.

Criminal Law, Agency, Contracts, Torts, Sales, Personal Property, Equity I, and Real Property are open to College seniors. In exceptional cases admission will be granted to the following courses when preceded or accompanied by the course in Contracts: Insurance, Bills and Notes, Private Corporations, Municipal Corporations, Public Utilities and Carriers, Partnership, Domestic Relations, and Wills.

School of Education. Students in the College may elect not to exceed fifteen hours in addition to senior teaching from the School of Education.

School of Engineering. The following courses in the School of Engineering are open to College students: C. E. 1, C. E. 2, Eng. Dr. 3, C. E. 52, C. E. 70, C. E. 71, C. E. 73, C. E. 75, E. E. 50, E. E. 51, M. E. 51, Ind. Eng. 51, Ind. Eng. 52, Mech. 50, Mech. 51, Mech. 55, A. E. 5, A. E. 6, Min. E. 53, and Min. E. 68.

School of Fine Arts. Juniors and seniors in the College may be enrolled in certain courses in the School of Fine Arts: Music 52, 53, 54, 55, 56, 57, 58, 59, and 60. (Not to exceed six hours credit in regular courses in Piano, Organ, Violin or Voice will be permitted, but such courses must be preceded or accompanied by an equal number of hours in the above theoretical courses.) Drawing 11 and 12; Painting 1 and 2; History of Art 51, 52, 53, and 54; Design 5 and 6; and History of Ornament 1 and 2.

School of Medicine. For conditions of election of courses in the School of Medicine, see page 72.

School of Pharmacy. Courses 62 and 63 are open to sophomore medical students (seniors), and to other juniors and seniors who after conference are judged able to pursue them to advantage. Courses 51 (Analysis), 52 and 53 are essentially advanced courses in applied chemistry. Prerequisites: General Chemistry, Qualitative Analysis, Quantitative Analysis, and Organic Chemistry. Courses 50 and 51 (Microanalysis) are open only to juniors and seniors.

STATE TEACHERS' CERTIFICATE.

Graduates of the College will be recommended for the state teachers' certificate, provided they have credit in professional branches in education to the amount of 18 semester hours, including not less than 3 semester hours each in general psychology, educational psychology or educational theory, and educational administration, and 9 semester hours additional in professional branches allied to those herein mentioned; and provided the scholarship record shows at least three-fourths of the marks above D and at least one-third of the marks above C.

UNIVERSITY TEACHERS' DIPLOMA.

Graduates of the College will be recommended for the University Teachers' Diploma by the School of Education if they complete the requirements set forth in the curriculum described in the School of Education section of the Catalog. This diploma also entitles the holder to the state teachers' certificate described above, but represents a more adequate preparation for teaching than the minimum requirements set by the State Board of Education.

RESERVE OFFICERS' TRAINING CORPS.

Students of the College will be admitted to courses offered by the Reserve Officers' Training Corps with a maximum credit of fifteen hours that may be counted in satisfaction of the requirements for the bachelor's degree. Reference is made to Section II for description of these courses.

SCHOOL OF ENGINEERING.

Courses of study are offered leading to the degree of Bachelor of Science in the following branches of engineering:

CIVIL ENGINEERING, with special options in Hydraulic, Railway, Structural, and Municipal and Sanitary Engineering.

ELECTRICAL ENGINEERING.

MECHANICAL ENGINEERING.

MINING ENGINEERING, with special options in Ore Dressing and Geological Engineering.

CHEMICAL ENGINEERING, with option in Metallurgical Engineering.

INDUSTRIAL ENGINEERING.

TRANSPORTATION AND CONSTRUCTION.

ARCHITECTURAL ENGINEERING.

ARCHITECTURE.

The curricula for the several branches are given in full in the following pages, on the basis of four years of resident study for students entering with the standard entrance requirements. On this basis, the required hours for graduation amount to 140, with slight variation. Provision is made, however, for students to take a more liberal training on a *five-year* basis, with a requirement of 160 hours for graduation. For this the degree granted is *Bachelor of Science* without designation of the branch of engineering. The *five-year* plan is recommended strongly for recent graduates of high schools. The first year of the five is supposed to be spent entirely in the College of Liberal Arts.

The following special rules have been laid down by the engineering faculty, some of which have the effect of modifying the requirements for graduation.

FOREIGN LANGUAGE REQUIREMENT.

By a recent ruling the study of foreign language is optional for engineering students, excepting those in chemical engineering, for whom German is required, and in architecture and architectural engineering, for whom French is required. Students to whom the German and French requirement applies take regularly ten hours of the language, but if they present credits in the same language at entrance, options may be allowed. Other students take ten hours of language, nontechnical options, or the R. O. T. C. training.

A list of approved nontechnical options follows the printed curriculum.

MATHEMATICS REQUIRED FOR GRADUATION.

The total amount of work in mathematics which is required for graduation, both high-school credits and courses taken after entering being considered together, must be equivalent to thirty-two hours in University courses for civil, electrical, mechanical, and architectural engineering students, and twenty-nine hours for mining-, chemical-engineering, and architecture students. Each unit of entrance credit counts as five hours. Students who present entrance credits amounting to more than fifteen hours, however, must complete the courses in calculus as prescribed in the curricula for the several branches.

Special Students. See page 19.

STUDENTS IN R. O. T. C.

Students are encouraged to enter the Reserve Officers' Training Corps to complete the training for commissions as reserve officers in either the engineer or coast artillery branch. An allowance of 13 hours is made for them from the regular curriculum, in addition to gymnasium credit, so that but little extra work is necessary. The 13 hours are to be taken as far as possible from general optional subjects, under control of the departmental advisers.

INADEQUATE PREPARATION.

When a student by his current work shows insufficient preparation for any course, he may be required to make good such deficiency by further study as recommended by the instructor and approved by the dean of the School.

A student who makes grade D in more than twenty-five per cent of his total hours will not be recommended for graduation unless his case is given special consideration by the School faculty. Such special consideration may be given him only in case he has secured grades better than D in fifty per cent of his hours of credit work in mathematics, physics, chemistry, geology, and all of the specialized engineering departments.

Fees. See page 22.

Registration. See page 20.

Enrollment. See page 20.

ENROLLMENT REGULATIONS.

The amount of work to be carried by students is expected to conform to the lists printed in the curriculum on the following pages. The number of hours there indicated may not be exceeded unless by express permission of the dean. Students who have shown inability to carry the full schedule, or who plan to devote time to remunerative work outside of school, are frequently obliged to restrict the number of hours carried to fifteen or even less.

Students are assigned to groups, each group being in charge of a member of the Faculty who acts as adviser at enrollment and during the year. Students above the freshman class are assigned to groups according to departments in which they are specializing. Advisers are expected to retain oversight over their charges throughout the year. Information on the current work of students is available for advisers at the dean's office, based on reports received from the several instructors. Students whose work is unsatisfactory will be required to modify their enrollment.

DEGREES.

The degree granted on completion of the work scheduled in the civil-, electrical-, mechanical-, mining-, chemical-, and architectural-engineering groups is "Bachelor of Science in ——— Engineering"; for the work in architecture, "Bachelor of Science in Architecture"; for the work in engineering and administrative science and in all of the five-year programs, "Bachelor of Science."

STUDENT ACTIVITIES.

Departmental societies or student branches of corresponding national professional institutes are maintained in all of the major groups. All students are encouraged to participate.

A chapter of the engineering honorary society, Tau Beta Pi, is conducted by students from the upper classes. Election to this is limited to those in the upper quarter of their classes on the scholarship standing basis.

CURRICULUM.

Four-year Schedules Leading to the Degrees of B. S. in Engineering and to B. S.

Freshman Year.

Subject.	Hours.					
	C. E. and Trans.	Elec. E.	M. E. and Ind. E.	Min. E.	Chem. E.	Arch. and A. E.
First Semester.						
Math. 2, Algebra	3	3	3	3	3	3
Math. 3, Trigonometry	2	2	2	2	2	2
Engl. 1E, Rhetoric	3	3	3	3	3	3
Chem. 2, Chemistry	.....	.....	.....	5	5	.....
Foreign Language, French	.....	.....	.....	.....	.....	5
German, Spanish or optional	5	5	5	.....	.....	.....
E. Dr. 1, Free-hand Drawing	2	2	2	2	2	.....
E. Dr. 2, Mech. Drawing	2	.....	.....	2	2	.....
E. Dr. 4, Mech. Drawing	.....	.....	.....	.....	.....	2
M. C. 1, Foundry	.....	1	1	.....	.....	.....
M. C. 2, Pattern Making	.....	1	1	.....	.....	.....
Arch. 1, Elem. of Arch	.....	.....	.....	.....	.....	2
I. E. 1, Engr. Lectures*	.....	.....	.....	.....	.....	.....
Ph. Ed. 1, Gymnasium*	.....	.....	.....	.....	.....	.....
Total hours	17	17	17	17	17	17
Second Semester.						
Math. 4, Anal. Geometry	5	5	5	5	5	5
Engl. 2, Rhetoric	2	2	2	2	2	2
Chem. 3, Qual. Analysis	.....	.....	.....	5	5	.....
Foreign Language, French	.....	.....	.....	.....	.....	5
German, Spanish, or optional	5	5	5	.....	.....	.....
E. Dr. 3, Desc. Geometry	3	3	3	3	3	3
E. Dr. 2, Mach. Drawing	.....	2	2	.....	.....	.....
M. C. 1 and 2	.....	.....	.....	.....	2	.....
M. C. 3, Forging	.....	.....	.....	1	.....	.....
M. C. 5, Bench Work	.....	.....	.....	1	.....	.....
Geol. 2, Elem. Geology	3	.....	.....	.....	.....	.....
Arch. 2, Free-hand Drawing II	.....	.....	.....	.....	.....	2
Ph. Ed. 2, Gymnasium*	.....	.....	.....	.....	.....	.....
Total hours	18	17	17	17	17	17

NOTE.—After 1921-'22 all not taking foreign language will take chemistry, and so reserve the optional hours for later years. Chemical students are required to take German in the junior year.

* Required of all.

Sophomore Year.

Subject.	Hours.							
	C. E.	E. E.	M. E.	Min. E.	Chem. E.	Ind. E.	Trans.	Arch. and A. E.
First Semester.								
Math. 5E, Calculus	5	5	5	5	5	5	5	5
Phys. 7A, Gen. Physics	5	5	.....	5	5	5	5	5
Chem. 2, Inorg. Chemistry	.....	4	4	.....	.....	.....	.....	.....
Geol. 2, Elem. Geology	.....	.....	.....	3	.....	.....	.....	.....
Geol. 3, Hist. Geology	.....	.....	.....	2	.....	.....	.....	.....
Chem. 51, Quant. Analysis	.....	.....	.....	.....	5	.....	.....	.....
C. E. 1, Elem. Surveying	3	.....	.....	†3	.....	.....	3	.....
M. E. 2, Mechanism	.....	.....	2	.....	.....	2	.....	.....
M. E. 4, Steam Machinery	.....	2	.....	.....	.....	2	.....	.....
M. E. 5, Engines and Boilers	3	.....	.....	.....	.....	.....	3	.....
M. E. 6, Steam Engineering	.....	.....	4	.....	.....	.....	.....	.....
M. E. 8, Machine Elements	.....	.....	.....	.....	2	.....	.....	.....
Draw. 1, Free-hand Drawing	.....	.....	.....	.....	.....	.....	.....	2
Arch. 3, Arch. Design I	.....	.....	.....	.....	.....	.....	.....	3
Arch. 5, Hist. of Arch. I	.....	.....	.....	.....	.....	.....	.....	2
Arch. 9, Shades and Shadows	.....	.....	.....	.....	.....	.....	.....	1
M. C. 3, Forging	.....	1	1	.....	.....	1	.....	.....
M. C. 5, Bench Work	.....	.....	1	.....	1	.....	.....	.....
Econ. 1E, Elem. Economics	.....	.....	.....	.....	.....	3	.....	.....
Mech. 57, Cement Laboratory	1	.....	.....	.....	.....	.....	.....	.....
Technical Report	½	½	½	½	½	½	½	½
Total hours	17½	17½	17½	18½	18½	18½	16½	18½
Second Semester.								
Math. 7E, Calculus	3	3	3	.....	.....	3	3	*a*3
Phys. 7A, Gen. Physics	.....	.....	5	.....	.....	.....	.....	.....
Phys. 7B, Gen. Physics	5	5	.....	*5	5	5	5	5
Chem. 3, Qual. Analysis	.....	4	.....	.....	.....	.....	.....	.....
Chem. 5, Eng. Chemistry	.....	.....	3	.....	.....	.....	.....	.....
Chem. 52, Quant. Analysis	.....	.....	.....	.....	5	.....	.....	.....
Geol. 31, Mineralogy	.....	.....	.....	5	5	.....	.....	.....
Geol. 4, Field Geology	.....	.....	.....	‡2	.....	.....	.....	.....
Geol. 61, Hist. Geology	.....	.....	.....	‡5	.....	.....	.....	.....
C. E. 2, Higher Surveying	3	.....	.....	†3	.....	.....	.....	.....
C. E. 4, Ry. Surveying	2	.....	.....	.....	.....	.....	2	.....
C. E. 5, Roads and Pavements	2	.....	.....	.....	.....	.....	.....	.....
C. E. 50, Surveying	.....	.....	3	†3	.....	3	.....	.....
Mech. 50a, Mechanics	2	.....	.....	.....	.....	.....	2	.....
E. E. 50, Dynamo Machinery	.....	3	.....	.....	.....	.....	.....	.....
E. E. 54, Elect. Laboratory	.....	1½	.....	.....	.....	.....	.....	.....
Econ. 1E, Economics	.....	.....	3	.....	.....	.....	.....	.....
Min. E. 1, Elem. of Mining	.....	.....	.....	3	.....	.....	.....	.....
Min. E. 2, Mine Surveying	.....	.....	.....	*1	.....	.....	.....	.....
Draw. 2, Free-hand Drawing	.....	.....	.....	.....	.....	.....	.....	2
Arch. 6, Hist. of Arch. II	.....	.....	.....	.....	.....	.....	.....	2
Arch. 4, Arch. Design II	.....	.....	.....	.....	.....	.....	.....	3
Arch. 12, Theory of Arch	.....	.....	.....	.....	.....	.....	.....	2
Arch. 10, Perspective	.....	.....	.....	.....	.....	.....	.....	*b*1
Arch. 14, Domestic Arch	.....	.....	.....	.....	.....	.....	.....	*b*2
Econ. 3, Econ. History	.....	.....	.....	.....	.....	3	.....	.....
Engl. 59, Adv. Composition	.....	.....	.....	†3	.....	.....	.....	.....
Pub. Sp. 50, Ext. Speaking	.....	.....	.....	.....	.....	.....	2	.....
M. C. 3, Forging	.....	.....	.....	.....	1	.....	.....	.....
M. C. 5, Bench Work	.....	1	.....	.....	.....	1	.....	.....
M. C. 6, Machine Tool Work	.....	.....	1	.....	.....	1	.....	.....
Technical Report	½	½	½	½	½	½	½	½
Total hours	17½	18	18½	*17½ ‡18½	16½	16½	17½	17½
Summer Work.								
C. E. 3, Field Work, Surveying	4 wks.	.....	.....	2 wks.	.....	.....	.....	.....

† Ore Dressing option requires C. E. 50 and Engl. 59 in place of C. E. 1 and 2.
* Regular Mining.
‡ Geological Option.
a A. E. *b* Arch.

Civil Engineering.

Subjects.	Hours.				
	General.	Hydraulic option.	Railway option.	Structural option.	Sanitary option.
JUNIOR YEAR.					
First Semester.					
C. E. 55, Ry. Surveying	4	4	4	4	.....
C. E. 54, Roads Laboratory	1	1	1	1	1
Mech. 50*b*, Mechanics	3	3	3	3	3
C. E. 74, Munic. Sanitation	.....	.....	.....	.....	2
C. E. 52, City Planning	.....	.....	.....	.....	2
Chem. 2, Chemistry	4	4	4	4	4
Engl. 59, Adv. Composition	3	3	3	3	3
Econ. 1E, Elem. Economics	3	3	3	3	.....
Bact. 53E, San. Water Analysis	.....	.....	.....	.....	3
Total hours	18	18	18	18	18
Second Semester.					
E. E. 60, El. of Elect. Engineering	3	3	3	3	3
Mech. 51, Strength of Materials	4	4	4	4	4
Mech. 52, Testing Laboratory	1	1	1	1	1
Mech. 53, Graphic Statics	2	2	2	2	2
Mech. 55, Hydraulics	3	3	3	3	3
Mech. 56, Hyd. Lab	1	1	1	1	1
Chem. 3, Qual. Analysis	.....	.....	.....	.....	4
Chem. 5E, Engineering Chemistry	3	3	3	3	.....
Technical Report	½	½	½	½	½
Total Hours	17½	17½	17½	17½	18½
SENIOR YEAR.					
First Semester.					
C. E. 57, Adv. Ry. Engineering	2	2	2	2	.....
C. E. 61, Stresses	5	5	5	5	5
C. E. 65, Reinf. Concrete	3	3	3	3	3
C. E. 70, Water Supplies	3	3	3	3	3
C. E. 80, Seminar	½	½	½	½	½
Mech. 58, Hydraulic Power	.....	3	.....	.....	.....
C. E. 58, Ry. Terms. and Signaling	.....	.....	2	.....	.....
Mech. 54, Eng. Materials	.....	.....	.....	2	.....
Chem. 52A, Water Analysis	.....	.....	.....	.....	3
C. E. 90, Thesis	1	1	2	2	2
Optional	3	.....	.....	.....	.....
Technical Report	½	½	½	½	½
Total hours	18	18	18	18	17
Second Semester.					
C. E. 62, Bridge Design	4	4	4	4	.....
C. E. 64, Masonry	3	3	3	3	3
C. E. 66, Reinf. Concrete	1	1	1	1	1
C. E. 71, Sewerage	2	2	2	2	2
C. E. 90, Thesis	2	2	1	1	1
C. E. 76, Irrigation and Drainage	.....	2	.....	.....	.....
C. E. 59, Ry. Const. and Maint	.....	.....	3	.....	.....
C. E. 67, Higher Structures	.....	.....	.....	3	.....
C. E. 62A, Struct. Designing	.....	.....	.....	.....	3
C. E. 72, Adv. Sani. Engineering	.....	.....	.....	.....	4
Optional	2	.....	.....	.....	.....
I. E. 52, Industrial Administration	3	3	3	3	3
Total hours	17	17	17	17	17

Electrical Engineering.

JUNIOR YEAR.

First Semester.

	Hrs.
E. E. 51, Theory of Alt. Currents	4
Mech. 50, Mechanics	5
Phys. 52, Theory of Electricity	3
Phys. 56, Electrical Measurements I	1½
M. E. 52, Heat Engine Theory	3
M. C. 6, Machine Tool Work II	1
Technical Report III	½
	18

Second Semester.

E. E. 52, Adv. Dynamo Machinery	4
E. E. 55, Electrical Laboratory	1½
M. E. 53, Machine Design II	3
Mech. 51, Strength of Materials	4
Mech. 52, Testing Laboratory	1
Econ. 1E, Elements of Economics	3
Phys. 56, Electrical Measurements II,	1½
	18

SENIOR YEAR.

First Semester.

E. E. 62, Central Stations	3
E. E. 56, Adv. Electrical Laboratory,	1½
E. E. 57, Illuminating Engineering	3
E. E. 58, Elect. Power Transmission,	4
M. E. 65, Power Laboratory	1½
Engl. 59, Adv. English Composition	3
Thesis	1
Technical Report IV	½
	17½

Second Semester.

E. E. 61, Thesis	3
Ind. E. 52, Industrial Administration,	3
C. E. 50, Surveying	3
Chem. 70, Physical Chem., Electro	5
Optional	3
	17

Mechanical Engineering.

JUNIOR YEAR.

First Semester.

	Hrs.
M. E. 51, Thermodynamics	3
Met. 90, Metallurgy I	3
Phys. 7B, General Physics	5
Mech. 50, Mechanics	5
M. C. 7, Machine Tool Work II	1
Technical Report	½
	17½

Second Semester.

M. E. 56, Motive Power Machinery	3
M. E. 50, Machine Design II	5
M. E. 64, Mech. Engineering Lab	1
Mech. 51, Strength of Materials	4
Mech. 52, Testing Laboratory	1
Engl. 59, Adv. English Composition	3
M. C. 8, Adv. Mach. Shop Practice	1
Technical Report	½
	18½

Summer Work.

M. E. 68, Summer Vacation Work... —

SENIOR YEAR.

First Semester.

M. E. 60, Automotive Engineering	3
Mech. 55, Hydraulics	3
Mech. 56, Hydraulic Laboratory	1
I. E. 51, Industrial Engineering II	3
E. E. 50, Dynamo Machinery	3
E. E. 54, Electrical Laboratory	1½
Option (see below)	3
	17½

Second Semester.

M. E. 66, Heat Engine Laboratory	1½
M. E. 54, Heating, Vent. and Refr.	2
I. E. 52, Industrial Administration	3
E. E. 53, Alternating Currents	3
E. E. 55, Electrical Laboratory	1½
Option (see below)	5
	16

Technical Options.

M. E. 68, Gas Eng. and Comp. Design,	3
Mech. 58, Hydraulic Power	3
M. E. 67, Thesis	3
M. E. 57, Steam Eng. and Turb. Des.,	3
E. E. 62, Central Stations	3
M. E. 61, Structural Design	2
I. E. 50, Manufacturing Costs	2

Mining Engineering.

Subject.	Hours. General.	Hours. Ore Dressing Option.	Hours. Geological Option.
JUNIOR YEAR.			
First Semester.			
Mod. Language or Option	5	5	5
Mech. 50, Mechanics	5	5	.....
Chem. 51, Quant. Analysis	5	5	.....
Min. E. 54, Metal Mining	2	.....	2
Min. E. 53, Ore Dressing I	.....	2	2
Geol. 51, Geologic Processes	.....	.....	5
Geol. 82, Petrography	.....	.....	3
Technical Report	½	½	½
Total hours	17½	17½	17½
Second Semester.			
Min. E. 52, Mining Law	1	.....	1
Mod. Language or Option	5	5	5
Min. E. 58, Ore Dressing II	.....	4	4
Mech. 51, Stresses of Materials	.....	4	.....
Mech. 52, Testing Laboratory	.....	1	.....
Mech. 50, Mechanics	.....	.....	5
Met. 53, Assaying	5	5	.....
Engl. 59, Adv. Composition	3	.....	3
Geol. 73, Economic Geol. II	5	.....	.....
Technical Report	.....	½	.....
Total hours	19	19½	18
SENIOR YEAR.			
First Semester.			
Min. E. 53, Ore Dressing I	2	.....	.....
Min. E. 54, Metal Mining	.....	2	.....
Min. E. 56, M. P. and M. Design	2	2	.....
Min. E. 64, Mining Engineering	3	*3	.....
Min. E. 66, Ore Dressing III	.....	4	.....
Met. 93, Gen. Metallurgy	†2	.....	.....
Min. E. 61, Coal Mining I	†2	.....	.....
Geol. 82, Petrography	†3	3	.....
Geol. 63, Invert. Paleontology I	.....	.....	5
Geol. 72, Economic Geology I	.....	.....	‡5
Mech. 51, Stresses of Materials	4	.....	4
Mech. 52, Testing Laboratory	1	.....	1
Econom. 1E, Elem. Economics	3	3	3
Technical Report	½	½	½
Total hours	17½ or 18½	17½	18½
Second Semester.			
Min. E. 55, Min. Hydraulics	2	2	.....
Min. E. 57, Mine Administration	1	1	1
Min. E. 59, Mine Examination and Reports	2	2	2
Min. E. 58, Ore Dressing, *or*	4	.....	.....
Min. E. 62, Coal Mining II	3	.....	.....
Min. E. 70, Coal Preparation, *or*	3	.....	.....
Met. 91, Metallurgy II	3	3 Op.	.....
Min. E. 63, M. P. and M. Design II	.....	3	.....
M. E. 4, Steam Machinery	2	2	.....
Geol. 73, Economic Geology	.....	.....	5
Ind. E. 52, Industrial Administration	2	2	2
Min. E. 60, Thesis (or Optional)	3	3	5
Total hours	18	15	15

* Optional with Elect. Eng. 60.
† One only.
‡ Optional with Assaying, Met. 53.

Chemical Engineering.

Subject.	Hours. Chemical Option.	Hours. Metallurgical Option.
JUNIOR YEAR.		
First Semester.		
Chem. 62, Organic Chemistry I	5	.....
German	5	5
Mech. 50, Mechanics	5	5
Engl. 59, Advanced Composition	3	3
Met. 90, Metallurgy	.....	3
Met. 93, General Metallurgy	.....	2
Total hours	18	18
Second Semester.		
Chem. 63, Organic Chemistry II	5	.....
Chem. 80, Industrial Chemistry, Inorganic	3	.....
German II	5	5
Mech. 51, Strength of Materials	4	4
Mech. 52, Testing Laboratory	1	1
Met. 91, Metallurgy I	.....	3
Met. 92, Metallurgy Laboratory	.....	2
M. E. 4, Steam Machinery	.....	2
Technical Report	½	½
Total hours	18½	17½
SENIOR YEAR.		
First Semester.		
Chem. 61, Organic Chemistry	.....	5
Chem. 71, Physical Chemistry, General	5	.....
Chem. 81, Industrial Chemistry, Organic	3	.....
Geol. 2, Elementary Geology	.....	3
E. E. 60, Elements of Electrical Engineering	.....	3
Min. E. 53, Ore Dressing I	.....	2
Min. E. 56, Mine Plant and Mill Design I	.....	2
Econ. 1E, Elements of Economics	3	3
Met. 90, Metallurgy I	3	.....
Met. 93, General Metallurgy	2	.....
Thesis or Chemical Option	3	.....
Technical Report	½	½
Total hours	19½	18½
Second Semester.		
Chem. 72, Physical Chemistry I	5	5
Met. 53, Assaying	3	3
Met. 91, Metallurgy II	3	.....
Met. 95, Metallography	.....	3
Min. E. 58, Ore Dressing II	.....	3
Min. E. 55, Mining Hydraulics	.....	2
Ind. E. 52, Industrial Administration	3	3
Thesis	3	.....
Total hours	17	19

ARCHITECTURE AND ARCHITECTURAL ENGINEERING.

Architectural Engineering.

JUNIOR YEAR.

First Semester.	*Hrs.*
Arch. 51, Architectural Design III...	4
Arch. 58, History of Architecture III,	2
Arch. 59, Building Construction I...	3
Mech. 50, Mechanics	5
Chem. 2, Inorganic Chemistry.....	4
Technical Report	½
	18½

Second Semester.	
Arch. 52, Architectural Design IV...	4
Arch. 58, History of Architecture IV,	2
Arch. 60, Building Construction II...	3
Arch. 62, Building Sanitation.....	1
Mech. 51, Strength of Materials.....	4
Mech. 52, Testing Laboratory.....	1
Mech. 53, Graphic Statics.....	2
Technical Report	½
	17½

SENIOR YEAR.

First Semester.	
Arch. 67, Office Pract. and Specif....	3
C. E. 61, Stresses in Framed Structures.	5
C. E. 65, Reinforced Concrete.....	3
Econ. 1E, Elements of Economics...	3
Engl. 59, Advanced Composition.....	3
	17

Second Semester.	
I. E. 52, Industrial Administration...	3
C. E. 50, Surveying.....	3
C. E. 62A, Structural Design.....	3
Mech. 57, Hydraulic Cement.....	1
M. E. 54, Heating and Ventilating...	2
E. E. 64, Elec. Eng. for Architects...	2
Arch. 56, Thesis.....	3
	17

Architecture.

JUNIOR YEAR.

First Semester.	*Hrs.*
Draw. 11, Free-hand Drawing III...	2
Arch. 57, History of Architecture III,	2
Arch. 59, Building Construction I....	3
Arch. 51, Architectural Design III...	5
Mech. 50, Mechanics.....	5
Technical Report	½
	17½

Second Semester.	
Draw. 12, Free-hand Drawing IV....	2
Arch. 52, Architectural Design IV...	5
Arch. 58, History of Architecture IV,	2
Arch. 60, Building Construction II...	3
Arch. 62, Building Sanitation.....	1
Mech. 51, Strength of Materials.....	4
Mech. 53, Graphic Statics.....	2
Technical Report.....	½
	19½

SENIOR YEAR.

First Semester.	
Arch. 53, Architectural Design V....	5
Anc. L. 89, Hist. of Sculp. and Paint.,	3
Arch. 67, Office Prac. and Specifications	3
Engl. 59, Advanced Composition.....	3
Econ. 1E, Elements of Economics....	3
	17

Second Semester.	
I. E. 52, Industrial Administration...	3
Arch. 54, Architectural Design VI...	5
M. E. 54, Heating and Ventilating...	2
E. E. 64, Elec. Eng. for Architects...	2
Arch. 56, Thesis.....	3
	15

ENGINEERING AND ADMINISTRATIVE SCIENCE.

Industrial Engineering Option

JUNIOR YEAR.

First Semester.	*Hrs.*
Ind. E. 50, Manufacturing Costs	2
Econ. 50, Money	3
M. E. 51, Thermodynamics	3
Chem. 2, Inorganic Chemistry	4
Mech. 50, Mechanics	5
Technical Report	½
	17½

Second Semester.	
M. E. 50, Machine Design II	5
M. E. 56, Motive Power Machinery	3
Chem. 5, Engineering Chemistry	3
Mech. 51, Strength of Materials	4
Mech. 52, Testing Laboratory	1
M. C. 7, Machine Tool Work II	1
	17

SENIOR YEAR.

First Semester.	
I. E. 51, Industrial Engineering II	3
Econ. 64, Accounting I	3
Econ. 70, Labor Problems	2
Optional	6
Mechanical Engineering Option	3
Technical Report	½
	17½

Second Semester.	
I. E. 52, Industrial Administration	3
Econ. 65, Accounting II	3
Econ. 51, Banking	3
Econ. 56, Ry. Rates and Regulation	2
E. E. 60, Elem. of Elec. Engineering,	3
Engl. 59, Advanced Composition	3
	17

Transportation and Construction Option.

JUNIOR YEAR.

First Semester.	*Hrs.*
Econ. 61, Public Finance I	3
Econ. 3, Economic Hist. of the U. S.,	3
C. E. 55, Railway Surveying	4
Mech. 50*b*, Theoretical Mechanics	3
Chem. 2, Inorganic Chemistry	4
Technical Report	½
	17½

Second Semester.	
Econ. 4, Commercial Geography	3
Mech. 55, Hydraulics	3
Mech. 51, Strength of Materials	4
Mech. 52, Testing Laboratory	1
Mech. 56, Hydraulic Laboratory	1
Engl. 59, Advanced Composition	3
Chem. 5E, Engineering Chemistry	3
	18

SENIOR YEAR.

First Semester.	
Econ. 70, Labor Problems	2
Econ. 64, Accounting I	3
C. E. 70, Water Supplies	3
C. E. 65, Reinforced Concrete	3
C. E. 58, Ry. Term. and Signaling	2
C. E. 57, Adv. Railway Engineering	2
E. E. 60, Elem. of Elec. Engineering,	3
Technical Report	½
	18½

Second Semester.	
I. E. 52, Industrial Administration	3
Econ. 57, Corporations and Trusts	3
Econ. 65, Accounting II	3
C. E. 52, City Planning	2
C. E. 64, Masonry Construction	3
C. E. 71, Sewerage	2
C. E. 167 Highway Transport	2
	18

THE FIVE-YEAR PROGRAM, LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

Requirements for Admission.

To be admitted to these courses of study the student must have completed all of the requirements for admission and thirty hours of work in the College. His work should have been selected so that at the close of the year in the College he will have completed, in entrance work and in College work combined, the following specified hours (it is understood that one complete College entrance unit equals five hours work in the University):

20 hours in Mathematics.
20 hours in English.
20 hours in Foreign Language.
5 hours in Physics or Chemistry.

If his work has not been selected to fulfill these requirements, the student will be required to make up all deficiencies.

Work Required for Graduation.

Students who have completed the year of College work will proceed with the engineering work in substantially the same order as indicated for the regular four-year students. A total of 160 hours in the five years is required. In adjusting to the optional plan in selecting work scheduled under foreign language, it is required that when the foreign language is chosen the student shall complete 13 hours in the one language.

LIST OF NONTECHNICAL ELECTIVES APPROVED FOR ENGINEERING STUDENTS.

A. For all Students in General:

Foreign Language		10 hrs.
Pol. Sci. 10, Amer. Government		5 hrs.
Geology (Exc. Civil and Min.)	3 or	5 hrs.
Pub. Sp. 50, Extempore Speaking		2 hrs.
Soc. 1 or 50, Elem. of Sociology	3 or	2 hrs.
Psy. 1*a*, General Psychology		3 hrs.
History, selected courses	3 or	5 hrs.
Math., selected courses		3 hrs.
Bacteriology 50		5 hrs.

B. For all except Chemical and Mining Students:

Additional Chemistry	2 or	3 hrs.
Metallurgy		3 hrs.

C. For all except Students in Engineering and Administrative Science:

Advanced Economics courses, selected	3 or	5 hrs.

INSPECTION TRIPS.

In all major departments it is provided that student groups, usually from the senior class, may be required to participate in inspection trips to visit engineering works and industrial plants. The student should plan for financing himself for these trips.

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SCHOOL OF FINE ARTS.

DEPARTMENTS.

The School of Fine Arts is made up of two general departments: (1) Music; (2) Art. Each of these general departments is divided into departments which offer the following major courses:

Departments offering courses.

I. Music	Piano.
	Voice.
	Violin.
	Organ.
	Composition.
	Public-school Music.
II. Art	Drawing and Painting.
	Design.
	Public-school Art.

THE FACULTY.

The professional faculty of the School of Fine Arts is made up of instructors who have had the advantage of the finest training to be secured in this country, and, in addition, many of them have had extended European training. Each one has had a large experience before the public—in concert, opera or oratorio, or as a painter or designer—and he is able to give practical advice to his students in these matters. No instructor with less than five years' teaching experience is engaged for the faculty, so students may be sure that they are in the hands of thoroughly experienced teachers. Many members of the faculty are authors, composers, and artists of rank and merit, their works having been issued by representative publishing houses. Each instructor is a specialist in his particular work, and represents the best thought and method of modern pedagogy along that line.

EQUIPMENT.

In Music. The Music Department of the School of Fine Arts occupies the central portion of the new Administration Building, where it has sixteen studios and classrooms, twenty piano practice rooms, an organ practice room, and a harp practice room. The department owns ten concert grand pianos, thirty upright pianos, a three-manual electric pipe organ, which has recently been rewired, a two-manual practice organ, and a Victrola with a library of several hundred music records.

In Art. The Art Department occupies the upper floor of the east wing of the Administration Building, where it has seven specially constructed, top-lighted studios. It has a complete equipment of the objects used in teaching drawing, painting and design. In the Mining Building it has clay and porcelain mixers and kilns for the use of its students in modeling, design and pottery. The Thayer Art Museum, of nearly 11,000 art objects, and the Brynwood Collection of Paintings (see pages 51 and 52) are open to all students.

The Library. The University Library contains a large collection of works on drawing, painting, design and public-school art, including art exposition and criticism; full sets of the classic and modern music works, with many books on musical art and criticism; a large collection of vocal

and orchestra scores of operas, oratorios and cantatas; biography, music, history and criticism; symphonies and overtures, chamber music, ensemble music, pianoforte and organ music. These collections are annually increased. In addition each department has a large departmental library.

CURRICULUMS.

Curriculums Leading to Degrees.

The curriculums in the School of Fine Arts leading to degrees are as follows:

Four-year courses in piano, voice, violin, organ, and composition, leading to the degree bachelor of music.

A four-year course in drawing and painting, leading to the degree bachelor of painting.

A four-year course in design, leading to the degree bachelor of design.

Curriculums Leading to an Artist's Certificate.

There are also four-year curriculums in voice, piano, organ, violin, drawing and painting and design, leading to an artist's certificate in these subjects.

These curriculums are designed to accommodate those students who are unable to meet the scholastic requirements of the regular courses in piano, voice, violin, organ, drawing and painting or design; or those who do not wish to carry the studies in the College which are required of students in the courses leading to a degree; or those who wish to specialize with the idea of fitting themselves as teachers of the various subjects.

For entrance to these courses twelve units of academic high-school work are required, and also the same musical requirements as for the degree courses.

The studies demanded for the completion of these courses are the same as for the completion of the degree courses, omitting the studies in the College.

Curriculums Leading to a Teacher's Certificate.

Three-year curriculums in voice, piano, organ, violin, drawing and painting and design lead to a teacher's certificate in these subjects.

The three-year curriculums are the same as the first three years of the artist's certificate curriculums, with the same entrance requirements. Candidates for the three-year teacher's certificate in piano or violin must present credits in one year of teaching materials in piano or violin, with one year of practice teaching.

Public-School Music—Public-School Art.

Two-year curriculums in public-school music and in public-school art lead to certificates in these subjects.

The two-year curriculums are designed to prepare students as teachers of music or of art in the grades and high schools of the state. The requirements for entrance are the same as for the College: viz., fifteen units of high-school work.

Upon the completion of these courses the State Board of Education will issue a special state certificate entitling the holder thereof to teach music or art in any of the grade or high schools of the state.

GENERAL.

The Thayer Art Museum.

Through the generosity of Mrs. William B. Thayer, of Kansas City, Mo., the University has an art collection that is of unusual value to art students. It was made with this end in view and illustrates the development of design in textiles, ceramics, glassware, and costumes. There

are a number of important paintings of the American school, Chinese and Japanese paintings, and 1,200 Japanese prints of exceptional merit. There are about 11,000 items in the collection, the most important being textiles, of which there are examples of Coptic and Byzantium textiles, Venetian embroidery of the fifteenth and sixteenth centuries, Chinese tapestries of the Ming period, Chinese embroideries, Indian and Persian shawls and rugs, a large collection of Paisley shawls and American counterpanes. In Chinese art, the collection is rich in cameo glass, ceramics, and jade articles, over 100 being snuff boxes. In Japanese art objects are many inros, nitsukis, and combs done in carved ivory and lacquer; bronze castings; swords and sword guards; cloisonné, and ceramics.

The following well-known American painters are represented by important examples of their work: George Innes, J. S. Murphy, Winslow Homer, Homer Martin, Paul Dougherty, Emil Carlsen, Richard Miller, Jonas Lie and Robert Henri.

The following European painters are represented: Joseph Israels, Mesdag and Sarolla Bastida.

There came with the Thayer collection about a thousand books upon art topics. The University has recently purchased the F. O. Marvin art library. These collections, added to the 3,500 books on art already in the University library, make it one of the largest and most valuable art libraries in the West. All are available to the student of art.

The Brynwood Collection of Paintings.

The Brynwood Collection of Paintings, belonging to the late B. M. Woodward, of Lawrence, has been loaned, for an indefinite period, to the School of Fine Arts. The collection consists of about fifty oil paintings and a few water colors and pastels. There are paintings by Inness, Murphy, Charles Partridge Adams, Mesdag, Ciardi, Thaulow, Leemputten, W. T. Richards, Charles Davis, Edward Gay, Frank R. Green, Lambinet, Vrolyk and others.

Concerts and Recitals.

The University supports a course of eight concerts by artists of the highest rank. All fine arts music students are admitted to these concerts free of charge.

During the year 1920-'21 the following artists and organizations appeared at the University: Margaret Matzenauer, Olga Steeb, Iliff Garrison, Sascha Jacobinoff, Myrna Sharlow, Agnes Lapham, Ignaz Friedman, Emilio de Gogorza, the Flonzaley String Quartette and the New York Philharmonic Symphony Orchestra, under the direction of Josef Stransky and Henry Hadley.

Public recitals and concerts are given frequently in Fraser Hall by members of the Faculty and by advanced students.

Recitals are given weekly by the students of the school, at which works studied in the studio are performed before an audience of fellow students and friends. All music students are required to attend these recitals and all concerts, and to present each semester a record of attendance.

Art Exhibitions.

Frequent exhibitions of works of art are held at the University, together with a course of lectures upon subjects related to fine arts. At the close of the year there is held an exhibition of work done by pupils of the Department of Drawing and Painting.

University Orchestra.

The University supports an orchestra of 53 pieces, made up of students and amateur musicians from the city. Weekly rehearsals are held and two concerts are given annually.

University Band.

The University Band of 50 pieces is made up wholly of University students. It rehearses twice each week and gives two annual concerts.

Glee Clubs.

A Men's Glee Club and a Women's Glee Club, conducted by members of the music faculty, give opportunity for the study and performance of the standard and lighter compositions for men's and women's voices. Each club gives two annual concerts and makes a trip through the state during the holidays.

Scholarships in the School of Fine Arts. See page 29.

Pianos for Practice.

The School of Fine Arts has eighteen practice rooms, each containing a new upright piano. A moderate fee to cover tuning and deterioration is charged for the use of the pianos in these rooms. Instruments can also be rented in town for from four to six dollars a month, and grand pianofortes at from seven to ten dollars a month.

Organs for Practice.

Advanced organ students may practice on the three-manual organ in Fraser Hall. There is a two-manual pedal organ in one of the practice rooms. The two-manual pipe organ in the Unitarian church may be rented for practice at a reasonable fee.

Harp Practice.

A concert harp and an Irish harp, in one of the practice rooms, are available for practice at a reasonable fee.

SPECIAL COURSES.

Teaching Materials—Piano, Violin.

These courses are designed to aid piano and violin students in grasping the principles and methods of teaching these instruments. A thorough review of the materials—exercises, studies, and pieces—used in a thorough and well-graded course for these instruments, together with the best and most modern methods of presenting these materials to pupils of all ages. Actual practice in teaching is gained by teaching beginning and intermediate pupils under the guidance of instructors. *One year of teaching materials is required of all piano or violin students who are candidates for a three-year teacher's certificate in either piano or violin.*

Harp.

Students so desiring may have instruction on either the Irish or the concert harp.

Band and Orchestral Instruments.

All band and orchestral instruments are taught by an experienced and competent instructor. Special rates of tuition are made to regular members of the University Band or the University Orchestra.

CURRICULUM.

For convenience, the major courses in music are listed in alphabetical order. These are followed by major courses in art.

All courses of study in the School of Fine Arts are arranged on the basis of 120 semester hours for graduation. Students must, before graduation, present credits in all *required* subjects and enough additional credits in *elective* subjects to make up the sum of 120 semester hours. Other elective subjects than those given in the following curriculums may be offered for credit, by arrangement with the Dean.

COMBINATION COURSES.

Piano or violin students in the diploma courses may receive a teacher's certificate also, by completing one year of teaching materials in piano or violin, with practice teaching.

Piano, vocal, or violin students in the diploma courses may receive a certificate in public-school music also, by taking, during each semester of the four-year course, one additional subject from the public-school music course.

Art students in the diploma course may receive a certificate in public-school art also, by completing the eight hours of normal methods and nine hours of educational subjects.

Certificates in both public-school music and public-school art may be secured by study during three years and one six-weeks summer session.

Music Curriculums.

Major and Elective Subjects.

Each regular music student working toward a degree or a certificate must carry a major subject in applied music—piano, voice, organ or violin—or a major subject in theoretical music—composition or public-school music. The student may also carry an *elective* subject in applied music, for which credit will be allowed as follows: piano, organ or violin, once a week, two hours credit per semester; twice a week, four hours credit per semester; voice, once a week, one and one-half hours credit per semester; twice a week, three hours credit per semester. Credit for the *elective* subject in music may be secured without regard to the student's previous study in this subject, with exception of regular vocal students, who must have completed one year of the preparatory piano course outlined on page 55 before credit can be secured for piano study.

ORGAN.

Leading to the degree Bachelor of Music.

Three-year course, open to those who have completed the work of the freshman year in piano.

Sophomore Year.

For the sophomore year the courses of study are the same as for the sophomore year in piano, except that the student takes one lesson in piano and one lesson in organ each week, instead of two lessons in piano.

Junior Year.

First Semester.	*Hours.*	Second Semester.	*Hours.*
Organ 3, twice a week	5	Organ 4, twice a week	5
Organ 8, once a week	1	Organ 9, once a week	1
Musical Theory 5 (Counterpoint)	2	Musical Theory 6 (Counterpoint)	2
Musical Theory 7 (Composition)	1	Musical Theory 8 (Composition)	1
History of Music 3	2	History of Music 4	2
Ensemble 3 (String Ensemble)	1	Ensemble 4 (String Ensemble)	1
Recitals 5	1	Recitals 6	1
Elective: English 12, Modern Language, Voice, Piano, Violin, etc.		*Elective:* English 13, Modern Languages, Voice, Piano, Violin, etc.	

(Private lessons are subject to fees.)

Senior Year.

For the senior year the courses of study are the same as for the senior year in piano, substituting organ 5 and 6 for piano 7 and 8, and adding organ 7 (Church Music) in the first semester.

PIANOFORTE.

Leading to the degree Bachelor of Music.

Freshman Year.

First Semester.	*Hours.*	Second Semester.	*Hours.*
Piano 1, twice a week	6	Piano 2, twice a week	6
Musical Theory 1 (Harmony)	2	Musical Theory 2 (Harmony)	3
Sight Singing and Ear Training 1	1	Sight Singing and Ear Training 2	1
Recitals 1	1	Recitals 2	1
Rhetoric 1 (The College)	3	Rhetoric 2 (The College)	2
Physical Education 20 (Hygiene)	1	Physical Education.	
Exercise (two hours each week).		*Elective:* Voice, Violin, Public-school Music, Modern Languages, etc.	

(Private lessons are subject to fees.)

Sophomore Year.

Piano 3, twice a week	6	Piano 4, twice a week	6
Musical Theory 3 (Harmony)	2	Musical Theory 4 (Harmony)	2
History of Music 1	2	History of Music 2	2
English 10 (The College)	2	English 11 (The College)	3
Ensemble 1 (Pianoforte Ensemble)	1	Ensemble 2 (Pianoforte Ensemble)	1
Recitals 3	1	Recitals 4	1
Physical Education.		Physical Education.	
Elective: Voice, Violin, Public-school Music, Modern Languages, etc.			

(Private lessons are subject to fees.)

Junior Year.

Piano 5, twice a week	6	Piano 6, twice a week	6
Musical Theory 5 (Counterpoint)	2	Musical Theory 6 (Counterpoint)	2
History of Music 3	2	Musical Theory 8 (Composition)	1
Musical Theory 7 (Composition)	1	History of Music 4	2
Ensemble 3 (String Ensemble)	1	Ensemble 4 (String Ensemble)	1
Recitals 5	1	Recitals 6	1
Elective: English 12, Modern Languages, Voice, Violin, Organ, etc.		Acoustics, twice a week for ten weeks,	1
		Elective: English 13, Modern Languages, Voice, Violin, etc.	

(Private lessons are subject to fees.)

Senior Year.

Piano 7, twice a week	7	Piano 8, twice a week	8
Musical Theory 11 (Instrumentation)	1	Muscial Theory 12 (Instrumentation),	1
Musical Theory 15 (Canon and Fugue),	1	Recitals 8	1
Recitals 7	1	Thesis 2	2
Thesis 1	1	*Electives:*	
Electives:		Musical Theory 9 (Composition)	1
Musical Theory 9 (Composition)	1	Musical Theory 14 (Form and Analysis)	1
Musical Theory 13 (Form and Analysis)	1	(Required of students who did not take Composition in the junior year.)	
(Required of students who did not take Composition in the junior year.)		Other electives as in previous years.	
Other electives as in previous years.			

PUBLIC-SCHOOL MUSIC COURSE.

Leading to a teacher's certificate in Public-school Music.

The course in public-school music is designed to prepare students for the position of teacher and supervisor of music in grade and high schools. Only the best modern methods are employed, and the training is so closely graded that, at the end of the course, the student has prepared full courses of music study for all grades, beginning with the kindergarten and ending with the senior year of the high school.

The School of Fine Arts has made arrangements with the board of education of the city of Lawrence whereby the city supervisor of music is also an instructor in the School of Fine Arts. During the sophomore year all students spend two hours each week in observing and teaching music in the city schools.

Special attention is given to correct methods of conducting choruses and orchestras, and to the materials and methods in community music work.

At least one year of study in singing is required of students who have not had individual vocal instruction. Students must be able to play piano accompaniments to choruses and songs, or make up the deficiency by private lessons during the course.

Upon the completion of this course the State Board of Education will issue a special certificate entitling the holder thereof to teach music in any of the grade or high schools of the state.

As there is such a demand for orchestras in the high schools, a class in violin playing has been formed for the students in this course. In this class, proper methods of fingering and bowing are taught, and the student is given practical experience in the use of the violin as an orchestral instrument.

The School of Fine Arts rents violins to those students who may not possess an instrument.

Candidates for this certificate must offer 60 credit hours. The subjects in the following curriculum are *required.* Other subjects to complete the necessary 60 hours may be offered from the School of Fine Arts, by arrangement with the dean.

Freshman Year.

First Semester.	*Hours.*	Second Semester.	*Hours.*
Public-school Music 1 (Grades 1, 2, 3 and 4)	3	Public-school Music 2 (Grades 5, 6, 7 and 8)	3
Musical Theory 1 (Harmony)	2	Musical Theory 2 (Harmony)	3
History of Music 1	2	History of Music 2	2
Sight Singing and Ear Training 1	1	Sight Singing and Ear Training 2	1
Supervisor's Violin 1	1	Supervisor's Violin 2	1
Chorus 1	1	Chorus 2	1
Recitals 1	1	Recitals 2	1
Physcial Education 20 (Hygiene)	1	Elementary Education (School of Education)	3
Electives: Voice, Piano, Community Music, Violin, etc.		Physical Education. *Electives:* Voice, Piano, Supervisor's Violin, etc.	

(Private lessons are subject to fees.)

Sophomore Year.

Public-school Music 3 (Junior and Senior High)	2	Public-school Music 4 (Senior High)	2
Practice teaching in Lawrence city schools	1	Practice teaching in the Lawrence city schools	1
Musical Theory 3 (Harmony)	2	Musical Theory 4 (Harmony)	2
History of Music 3	2	History of Music 4	2
Sight Singing and Ear Training 3	1	Musical Theory 12 (Instrumentation),	1
Conducting	1	Sight Singing and Ear Training 4	1
Musical Theory 11 (Instrumentation)	1	Conducting	1
Chorus 3	1	Chorus 4	1
Recitals 3	1	Recitals 4	1
General Psychology (The College)	3	Methods of Teaching (School of Education)	3
Electives: Voice, Piano, Supervisor's Violin, etc.		*Electives:* Voice, Piano, Supervisor's Violin, etc.	

(Private lessons are subject to fees.)

VIOLIN.

Leading to the degree Bachelor of Music.

Violin students are required to play in the University Orchestra during the four years of the course, unless excused by the dean, on recommendation of the conductor. One hour credit each semester is allowed for orchestral playing.

Violin students remain in the String Ensemble classes for two years, receiving one hour credit each semester.

Violin students should be able to play simple piano accompaniments. Any deficiency in this respect must be made up before graduation.

Freshman Year.

First Semester.	*Hours.*	Second Semester.	*Hours.*
Violin 1, twice a week	5	Violin 2, twice a week	5
Orchestra 1	1	Orchestra 2	1
Musical Theory 1 (Harmony)	2	Musical Theory 2 (Harmony)	3
Sight Singing and Ear Training 1	1	Sight Singing and Ear Training 2	1
Recitals 1	1	Recitals 2	1
Rhetoric 1 (The College)	3	Rhetoric 2 (The College)	2
Physical Education 20 (Hygiene)	1	Physical Education.	
Exercise (two hours each week).		*Elective:* Voice, Violin, Public-school Music, Modern Languages, etc.	

(Private lessons are subject to fees.)

Sophomore Year.

Violin 3, twice a week	5	Violin 4, twice a week	5
Orchestra 3	1	Orchestra 4	1
Musical Theory 3 (Harmony)	2	Musical Theory 4 (Harmony)	2
History of Music 1	2	History of Music 2	2
English 10 (The College)	2	English 11 (The College)	3
Ensemble (String Ensemble)	1	Ensemble (String Ensemble)	1
Recitals 3	1	Recitals 4	1
Physical Education.		Physical Education.	
Elective: Voice, Piano, Public-school Music, Modern Languages, etc.			

(Private lessons are subject to fees.)

Junior Year.

Violin 5, twice a week	6	Violin 6, twice a week	6
Orchestra 5	1	Orchestra 6	1
Musical Theory 5 (Counterpoint)	2	Musical Theory 6 (Counterpoint)	2
History of Music 3	2	Musical Theory 8 (Composition)	1
Musical Theory 7 (Composition)	1	History of Music 4	2
Ensemble (String Ensemble)	1	Ensemble (String Ensemble)	1
Recitals 5	1	Recitals 6	1
Elective: English 12, Modern Languages, Voice, Piano, Organ, etc.		Acoustics, twice a week for ten weeks,	1
		Elective: English 13, Modern Languages, Voice, Piano, etc.	

(Private lessons are subject to fees.)

Senior Year.

Violin 7, twice a week	7	Violin 8, twice a week	8
Orchestra 7	1	Orchestra 8	1
Muscial Theory 11 (Instrumentation)	1	Musical Theory 12 (Instrumentation),	1
Musical Theory 15 (Canon and Fugue),	1	Recitals 8	1
Recitals 7	1	Thesis 2	2
Thesis 1	1	*Electives:*	
Electives:		Musical Theory 9 (Composition)	1
Musical Theory 9 (Composition)	1	Musical Theory 14 (Form and Analysis)	1
Musical Theory 13 (Form and Analysis)	1	(Required of students who did not take Composition in the junior year.)	
(Required of students who did not take Composition in the junior year.)		Other electives as in previous years.	
Other electives as in previous years.			

VOCAL CULTURE.

Leading to the degree Bachelor of Music.

Students in the regular course in voice should be able to play accompaniments of moderate difficulty. Any deficiency in this respect must be made up by private lessons before entering the junior year.

Freshman Year.

First Semester.	*Hours.*	Second Semester.	*Hours.*
Voice Culture 1, twice a week	3	Vocal Culture 2, twice a week	3
Musical Theory 1 (Harmony)	2	Musical Theory 2 (Harmony)	3
Sight Singing and Ear Training 1	1	Sight Singing and Ear Training 2	1
Recitals 1	1	Recitals 2	1
Rhetoric 1 (The College)	3	Rhetoric 2 (The College)	2
Italian 1 (The College)	3	Italian 2 (The College)	3
Physical Education 20 (Hygiene)	1	Physical Education.	
		Elective: Piano, Public-school Music, Violin, etc.	

(Private lessons are subject to fees.)

Sophomore Year.

Vocal Culture 3, twice a week	3	Vocal Culture 4, twice a week	3
Musical Theory 3 (Harmony)	2	Musical Theory 4 (Harmony)	2
History of Music 1	2	History of Music 2	2
English 10 (The College)	2	English 11 (The College)	3
German 1 (Fine Arts)	3	German 2 (Fine Arts)	3
Recitals 3	1	Recitals 4	1
Chorus 1	1	Chorus 2	1
Physical Education.		Physical Education.	
Elective: Piano, Public-school Music, Violin, etc.			

(Private lessons are subject to fees.)

Junior Year.

Vocal Culture 5, twice a week	4	Vocal Culture 6, twice a week	4
Musical Theory 5 (Counterpoint)	2	Musical Theory 6 (Counterpoint)	2
Muscial Theory 7 (Composition)	1	Musical Theory 8 (Composition)	1
History of Music 3	2	History of Music 4	2
French 1 (Fine Arts)	3	French 2 (Fine Arts)	3
Recitals 5	1	Recitals 6	1
Chorus 3	1	Chorus 4	1
Elective: English 12, Piano, Vocal Seminar, etc.		*Elective:* English 13, Piano, Vocal Seminar, etc.	

(Private lessons are subject to fees.)

Senior Year.

Vocal Culture 7, twice a week	5	Vocal Culture 8, twice a week	5
Musical Theory 11 (Instrumentation)	1	Musical Theory 12 (Instrumentation)	1
Musical Theory 15 (Canon and Fugue),	1	Recitals 8	1
Recitals 7	1	Thesis 2	2
Chorus 5	1	Chorus 6	1
Thesis 1	1	*Electives:*	
Electives:		Musical Theory 9 (Composition)	1
Musical Theory 9 (Composition)	1	Musical Theory 14 (Form and Analysis)	1
Musical Theory 13 (Form and Analysis)	1	(Required of students who did not take Composition in the junior year.)	
(Required of students who did not take Composition in the junior year.)		Modern Languages, Piano, Violin, etc.	
Modern Languages, Piano, Violin, etc.			

(Private lessons are subject to fees.)

Art Curriculums.

DESIGN.

Leading to the Degree Bachelor of Design.

This course affords a foundation of general art appreciation and training, and prepares the student for the application of art to practical purposes. To accomplish this end the students are given one year in the general art course. During the three years following the work is specialized through training and the study of color and the various lines of design as applied to the crafts and for the purposes of reproduction. Special attention is paid to the designing of printed textiles, such as dress silks, drapery silks and cretonnes.

Students in design are required to furnish their own materials, excepting certain studio equipment provided by the University. All design

work, when completed, is under the control of the department until after the public exhibition of student work, which occurs at the end of the academic year.

Each candidate for a degree may be required to leave with the School of Fine Arts two pieces of original art work. These are added to the permanent exhibit of the work of graduates.

Freshman Year.

(General Art Course.)

FIRST SEMESTER.	*Hours.*	SECOND SEMESTER.	*Hours.*
Design 3	3	Design 4	3
Drawing 1 (Antique)	4	Drawing 2 (Antique)	4
Drawing 5 (Perspective)	1	Drawing 6 (Anatomy)	1
Drawing 7 (Composition), Drawing 9 (Sketch)	2	Drawing 8 (Composition)	2
Drawing 3 (Constructive)	2	Drawing 10 (Sketch)	1
Rhetoric 1	3	Drawing 4 (Constructive)	2
Hygiene	1	Rhetoric 2	2
Physical Education.		Physical Education.	

Sophomore Year.

Design 5	3	Drawing 12 (Life)	2
Drawing 11 (Life Drawing)	2	Design 6	3
Drawing 15 (Nature Drawing and Museum Study)	1	Drawing 16 (Nature Drawing and Museum Study)	1
Hand Crafts 1	1	Hand Crafts 2	1
Hand Crafts 3 (Bookbinding)	2	Hand Crafts 4 (Bookbinding)	2
Clay Modeling 1 (Pottery)	2	Clay Modeling 2 (Pottery)	2
Drawing 13 (Sketch)	1	Drawing 14 (Sketch)	1
History of Art 1 (Ornament)	1	History of Art 2 (Ornament)	1
English 10	2	English 11	3

Junior Year.

Design 53	3	Design 54	3
Hand Crafts 61 (Bookbinding)	2	Hand Crafts 62 (Bookbinding)	2
Hand Crafts 65 (Metal Work and Jewelry)	1	Hand Crafts 66 (Metal Work and Jewelry)	1
Clay Modeling 51	2	Clay Modeling 52	2
Hand Crafts 51	1	Hand Crafts 52	1
Technic Commercial Art 51	1	Technic Commercial Art 52	1
Elective:		*Elective:*	
Public School Art Methods 1	2	Public School Art Methods 2	2
or Drawing 53 (Sketch)	1	*or* Drawing 54 (Sketch)	1
History of Art 51 (Painting)	2	History of Art 52 (Painting)	2
Painting 1	1	Painting 2	1

Senior Year.

Design 55	3	Design 56	3
Technic Commercial Art 53	1	Technic Commercial Art 54	1
Hand Crafts 67 (Metal Work and Jewelry)	1	Hand Crafts 68 (Metal Work and Jewelry)	1
History of Art 53 (American Painting),	2	History of Art 54 (American Painting),	2
Elective:		*Elective:*	
Public School Art Methods 3	2	Public School Art Methods 4	2
Painting 51 or Design	5	Painting 52 or Design	5
Hand Crafts 53	1	Hand Crafts 54	1
Drawing 51 (Life)	5	Drawing 52 (Life)	5
Drawing 57 (Sketch)	1	Drawing 58 (Sketch)	1
Hand Crafts 63 (Bookbinding)	2	Hand Crafts 64 (Bookbinding)	2
Clay Modeling 55	2	Clay Modeling 56	2

DRAWING AND PAINTING.

Leading to the Degree Bachelor of Painting.

Students in drawing and painting are required to furnish their own materials, except easels.

All art work, when finished, is under the control of the instructors until after the close of the public exhibition of student work, at the end of the academic year.

Each candidate for a degree may be required to leave with the School of Fine Arts two pieces of original art work. These are added to the permanent exhibit of the work of graduates.

Freshman Year.

FIRST SEMESTER.	*Hours.*	SECOND SEMESTER.	*Hours.*
Drawing 1 (Antique)	4	Drawing 2 (Antique)	4
Design 3	3	Design 4	3
Drawing 3 (Constructive)	2	Drawing 4 (Constructive)	2
Drawing 5 (Perspective)	1	Drawing 6 (Anatomy)	1
Drawing 7 (Composition), Drawing 9 (Sketch)	2	Drawing 8 (Composition)	2
Rhetoric 1	3	Drawing 10 (Sketch)	1
Hygiene	1	Rhetoric 2	2
Physical Education.		Physical Education.	

Sophomore Year.

Painting I (Still Life)	5	Painting 2 (Still Life)	5
Drawing 11 (Life)	5-3	Drawing 12 (Life)	5-3
Drawing 13 (Sketch)	1	Drawing 14 (Sketch)	1
Painting 3 (Composition)	1	Painting 4 (Composition)	1
History of Art I (Ornament)	1	History of Art 2 (Ornament)	1
English 10	2	English 11	3
Elective: Design 5	2	*Elective:* Design 6	2

Junior Year.

Painting 51 (Portrait)	5	Painting 52 (Portrait)	5
Drawing 51 (Life)	5-4	Drawing 52 (Life)	5-4
Painting 53 (Composition)	2	Painting 54 (Composition)	2
Drawing 53 (Sketch)	1	Drawing 54 (Sketch)	1
History of Art 51 (Modern Painting)	2	History of Art 52 (Modern Painting)	2
Elective:		*Elective:*	
Technic Commercial Art 51, or Design 54.		Technic Commercial Art 52, or Design 55.	
Public School Art Methods 1.		Public School Art Methods 2.	

Senior Year.

Painting 55 (Life)	5	Painting 56 (Life)	5
Drawing 55 (Life)	5-4	Drawing 56 (Life)	5-4
Painting 57 (Composition)	2	Painting 58 (Composition)	2
Drawing 57 (Sketch)	1	Drawing 58 (Sketch)	1
History of Art 53 (American Painting),	2	History of Art 54 (American Painting),	2
Elective:		*Elective:*	
Technic Commercial Art 53, or Design 56.		Technic Commercial Art 54, or Design 57.	
Public School Art Methods 3.		Public School Art Methods 4.	

PUBLIC-SCHOOL ART COURSE.

Leading to a teacher's certificate in Public-school Art.

The course in public-school art is designed to prepare students for the position of teacher and supervisor of art in grade and high schools. In addition to the work in methods of teaching art in the public schools, strict attention is given to actual practice in free-hand drawing, perspective, composition, design, clay modeling, hand crafts and bookbinding.

To comply with the regulations of the State Board of Education, nine hours of educational work in the College and the School of Education is included in the course. Upon the completion of this course the State Board of Education will issue a special certificate entitling the holder thereof to teach art in any of the grade or high schools of the state.

Freshman Year.

FIRST SEMESTER.	*Hours.*	SECOND SEMESTER.	*Hours.*
Drawing 1 (Antique)	4	Drawing 2 (Antique)	4
Design 3	3	Design 4	3
Drawing 3 (Constructive)	2	Drawing 4 (Constructive)	2
Drawing 5 (Perspective)	1	Drawing 6 (Anatomy)	1
Drawing 7 (Composition), Drawing 9 (Sketch)	2	Public School Art Methods 2	2
Public School Art Methods 1	2	Elementary Education (Education)	3
Hygiene and Physical Education	1	Physical Education.	

Sophomore Year.

Design 5	3	Design 6	3
Drawing 13 (Sketch)	1	Drawing 14 (Sketch)	1
History of Art 1 (Ornament)	1	History of Art (Ornament)	1
Bookbinding 1	2	Bookbinding 2	2
Hand Crafts 1	1	Hand Crafts 2	1
Clay Modeling	2	Clay Modeling	2
Public School Art Methods 3	2	Public School Art Methods 4	2
General Psychology (College)	3	Methods of Teaching (Education)	3

THE SCHOOL OF LAW.

HISTORY AND ORGANIZATION.

The School of Law was organized in October of the year 1878, and thus became the first professional school of the University. The law courses were originally designed merely as electives to be taken in addition to certain collegiate branches, but with the year 1879 the School of Law was definitely established as a separate department, and graduated its first class in 1880. In 1900 the course was extended from two to three years, and the entrance requirements have also been increased from time to time. The School of Law enjoys the unique distinction of having been presided over for more than forty years by its first dean, the late James W. Green.

EQUIPMENT.

Green Hall. A building for the use of the School of Law was completed in the summer of 1905 and is one of the most complete and best-equipped law buildings in the West. It has three floors devoted to classrooms, offices, and library reading room. The library and reading room occupies the whole upper floor. It has space for about 20,000 volumes, and opening into the reading room are private study rooms for students and Faculty.

A large room is set aside on the lower floor for a practice court, and the facilities of the whole building are made as available as possible for the students of the School.

Libraries. The law library, comprising over 11,000 volumes, is for the exclusive use of the students and teachers of the School of Law. It has an excellent equipment of the best law textbooks, and new texts are being added constantly. The library has also reports of the courts of last resort, both state and Federal, and the full reprints of the English cases. The latest law periodicals and reviews are taken by the law library and are made available to all students. Additions are made annually to the library equipment, and plans are under consideration for a large increase in the library facilities.

In addition to the volumes devoted exclusively to law, the University library, of nearly 150,000 volumes, is at the disposal of the law students. This library is especially well equipped with books in the departments of history, economics, sociology, general sciences and general literature. One of the largest and best-selected libraries for scholarly research is therefore at hand for students of law.

State Library. The State Library at Topeka, which is largely a law library, is easily accessible to students upon necessary occasions. Such works as usually may be found in large state libraries are therefore at the service of members of the Law School.

PURPOSES AND METHOD OF INSTRUCTION.

It is the aim and purpose of the School of Law to give its students a thorough and scientific acquaintance with the general principles of English and American law and to furnish a course of legal instruction that shall fit them to practice at the bar of any state of the union; also to give those who do not expect to become practicing attorneys, but who desire to obtain a knowledge of law as a valuable preparation for a business career, such instruction as may be best suited to their needs.

It is proved by experience that in order to obtain the highest efficiency, instructional training in law courses must be given by resident teachers who give their whole time to the work of the School. This system of instruction is followed by the School of Law of the University of Kansas. There are five resident professors who have charge of daily classes, and they may be consulted at all reasonable times in their offices at the law building by students seeking advice in their studies. The classroom instruction is supplemented by lectures from time to time, given by distinguished judges and lawyers.

In accord with the practice of all the best American law schools, the method of teaching is based upon the study of the reported cases, including the decisions of both the Federal and the various state courts. In this way the student studies the authorities at first hand, becomes familiar with the methods of judicial reasoning, and from the beginning of his course enters upon the plan of study that the practicing lawyer must pursue throughout his professional life. This method involves the facts of the reported case, the questions of law raised upon such facts, and the decision thereon, including the reasons or principles that underlie the decision. The attention of the student is directed to the necessity of distinguishing decisions based upon different facts and different principles. Where the decisions are in conflict, the reasons are observed and the weight of authority considered.

WORK IN PREPARATION FOR LAW.

The student preparing to enter the School of Law should carefully select his preliminary work in the College. The following courses are suggested as valuable in the general education of a lawyer:

First Year.

FIRST SEMESTER.	*Hours.*	SECOND SEMESTER.	*Hours.*
Rhetoric	3	Rhetoric	2
English Literature	2	English Literature	3
Latin	5	Latin	5
Math., or Physical or Biological Science,	5	English History	5
	15		15

Second Year.

Economics	5	Psychology	5
Latin or Science	5	American Government or American History	5
Sociology	3	Common Law	2
Common Law	2	Logic or Comparative Government	3
	15		15

Requirements for Admission. See page 17.

ADMISSION TO ADVANCED STANDING.

Students from other law schools, members of the Association of American Law Schools, may be admitted to advanced standing, either conditionally or upon such examination as the Faculty may prescribe. However, such credit shall be limited to two-thirds of that which is prescribed for graduation, and in no case will the degree of LL. B. be conferred upon a candidate for the same except after a full year of resident work at the University of Kansas.

COLLEGE AND SCHOOL OF LAW IN SIX YEARS.

Beginning with September, 1921, College students who have attained at least full senior standing may offer in satisfaction of all or part of the requirements of the senior year, a maximum of thirty hours from the first year of the law curriculum. To such students the College will grant

the degree of Bachelor of Arts. To secure this privilege of offering law work towards the College degree, a student must have spent one full year in residence at the College before entering upon his law studies. He must also register in the College, as well as in the School of Law, and be subject to such general regulations of the College Faculty as govern other seniors.

Whenever a student has completed the law work in accordance with the foregoing provision, the dean of the School of Law will submit to the dean of the College a certified statement of the fact, accompanied by the recommendation of the Faculty of the School of Law, that such student be admitted to the degree of Bachelor of Arts. The name of the candidate will then be sent to the College Faculty as that of a candidate for that degree.

Special Students. See page 19.

Registration. See page 20.

Enrollment. See page 20.

Fees. See page 22.

GRADUATION.

The degree of bachelor of laws will be conferred upon all candidates of good moral character who have satisfactorily completed ninety hours of credit in the School of Law. In order to complete satisfactorily the said ninety hours the candidate must have received in at least sixty hours a grade of A, B, or C. The first two years may be spent in some other law school which is a member of the Association of American Law Schools, subject to the conditions of advanced standing described herein. At least three years of study in a law school are required.

ADMISSION TO THE BAR IN KANSAS.

No diploma of graduation from a law school will admit one to the bar in the state of Kansas. Applicants for admission are required to pass an examination conducted by the State Board of Examiners appointed by the supreme court. The statute (G. S. 1915, sec. 478) provides that any citizen of the United States who is a graduate of the School of Law of the University of Kansas, or some other law school of equal requirements and reputation, or who has read law for three years in the office of a regularly practicing attorney, may be admitted to practice upon satisfying the supreme court that he possesses the requisite ability and learning and that he is of good moral character.

Under this statute the supreme court has adopted certain rules (see Rules of the Supreme Court of Kansas, Nos. 20-25, 100 Kan. xx), providing for the examination of applicants for admission to the bar. The board of examiners meets at Topeka on the third Monday in January and June. Applications for examination and proof of qualifications must be filed with the secretary of the board at least three weeks before the examination. Printed forms of application may be obtained from the clerk of the supreme court, Topeka, Kan.

All applicants must have a general education substantially equivalent to that required in a standard four-year course of an accredited high school. By a recent rule of the supreme court, applicants for admission to the bar at the examination of June, 1924, and also in January, 1925, must, in addition to the required high-school work, show a year's work in college, and at examinations subsequent thereto, two years in college.

In addition, candidates for admission are required to pass a written examination covering their legal qualifications upon subjects prescribed by the State Board of Examiners. All subjects included in these professional requirements are within the course of study of the University School of Law.

STUDENT HONORS AND ACTIVITIES.

Honors. By resolution, the State Bar Association of Kansas, as a recognition of the School of Law and for the purpose of encouraging its students to work along the line of legal literature, assigns a place on the literary program of the annual meeting to that student of the senior class who prepares the best paper on some legal topic assigned by the Law Faculty. The merits of the papers submitted are passed upon by a committee appointed for that purpose.

High scholarship and earnest endeavor are stimulated and encouraged in the School of Law by the posting, at the close of each semester, of an honor roll of the ten leading regular students of each class. This honor roll is also published in the *University Daily Kansan* and in the newspapers of the state. The selection of the honor students is made by the whole Faculty of the School of Law.

Debating. Interstate debates are held each year with Oklahoma, Missouri, and Colorado universities. Members of the Law School student body are admitted to the preliminary contest held for the purpose of choosing representatives for each of these debates. Those chosen receive practical instruction in public speaking and debate by a committee of the General Faculty of the University. An event arousing great interest throughout the whole University is the annual debate between teams chosen from the student bodies of the School of Law and the School of Engineering.

LAW SCHOOL CURRICULUM.

The following schedule of courses presents the arrangement of the work as offered in the School of Law at the present time. First-year students are required to take all of the courses offered for that year, a total of thirty-two hours. Second- and third-year students may, from the courses offered in those respective years, elect such courses as will amount to not less than fourteen hours each semester. A description of the subject matter covered by the courses herein designated will be found in Section II of the University Catalog.

First Year.

FIRST QUARTER.	*Hours.*
Contracts I	5
Criminal Law I	5
Personal Property	5
Practice Court	1

SECOND QUARTER.	
Contracts II	5
Criminal Law II	5
Torts I	5
Practice Court	1

THIRD QUARTER.	*Hours.*
Torts II	5
Sales	5
Damages	5
Practice Court	1

FOURTH QUARTER.	
Real Property I	5
Agency	5
Equity I	5
Practice Court	1

Second Year.

FIRST QUARTER.	
Common Law Pleading	5
Equity II	5
Wills	5
Practice Court	2

SECOND QUARTER.	
Equity Pleading	5
Insurance	5
Quasi Contracts	5
Practice Court	2

THIRD QUARTER.	
Code Pleading	5
Domestic Relations	5
Evidence	5
Practice Court	2

FOURTH QUARTER.	
Real Property II	4
Bills and Notes	5
Evidence	5
Roman Law	1
Practice Court	2

Third Year.

FIRST QUARTER.

Real Property III	4
Private Corporations	5
Partnership	5
Roman Law	1
Practice Court	2

SECOND QUARTER.

Real Property IV	4
Municipal Corporations	5
Public Utilities and Carriers	5
Roman Law	1
Practice Court	2

THIRD QUARTER.

Conflict of Laws	5
Trusts and Bankruptcy	5
Constitutional Law I	5
Practice Court	2

FOURTH QUARTER.

Provisional and Extraordinary Remedies,	5
Suretyship	5
Constitutional Law II	5
Practice Court	2

COURSES OF LAW IN THE SUMMER SESSION.

A Summer Session of the Law School is held each year, beginning upon Monday following the close of the regular session. The Summer Session continues for ten weeks, being divided into two terms of five weeks each. The first term will begin on Monday, June 13, 1921, closing July 15. The second term will begin on July 18, closing August 19. A student may enter at either term. There will be a vacation period of over four weeks between the close of the second term and the opening of the regular session in September.

The summer courses are identical with the corresponding courses offered in the regular session, and full credit on the work required for a degree is given to the work done in the Summer Session. By means of the Summer Sessions a student may materially shorten the time of residence required for a degree, since three Summer Sessions are equivalent to a year. For example, a student beginning his work in the Summer Session of June, 1921, may by continuous attendance upon that session, the regular session of 1921-1922, the Summer Session of 1922, and the regular session of 1922-1923, complete his three years of required attendance by the end of the Summer Session of 1923.

The courses offered for the Summer Session of 1921 are the following:

FIRST TERM.

Criminal Law I.
Conflict of Laws.
Domestic Relations.
Contracts I.

SECOND TERM.

Insurance.
Torts I.
Bills and Notes.
Suretyship.

THE SCHOOL OF PHARMACY.

PURPOSE AND ORGANIZATION.

The School of Pharmacy of the University of Kansas was established by legislative enactment in 1885. The purpose of the School is to give instruction and practical training in all branches connected with the science and art of pharmacy.

The three general divisions of instruction embrace pharmacy, theoretical and practical; chemistry, general and analytical, the latter including pharmaceutical chemistry; and materia medica, including its subdivisions of botany (systematic and histologic), pharmacognosy (macroscopic and microscopic), therapeutics and toxicology.

EQUIPMENT.

The School of Pharmacy occupies the first two floors and basement of the east wing of the Chemistry and Pharmacy Building. The building is arranged specifically for laboratory purposes for the departments of chemistry and pharmacy.

Laboratory instruction for pharmacy students is also given in the laboratories of the following departments: Chemistry, bacteriology, botany, mineralogy, physiology, and physics.

Apparatus. For the various practical courses offered by this School a large amount of laboratory apparatus of domestic and foreign types is supplied. The various laboratories are equipped for manufacturing purposes, so that any preparation of the United States Pharmacopœia can be made by any of the official methods; and, in addition, appliances and materials are at hand for the unofficial and extra-pharmacopœial products.

The lecture table is abundantly supplied with illustrative apparatus, so that the student may see before him the various processes in operation which may be carried on in the laboratories and at the prescription counters. Care has been taken to illustrate pharmacy in all its phases.

Collections. The Pharmacy School possesses an extensive herbarium of medical plants, together with a collection of photographs representing nearly 200 species. This, in conjunction with the large herbarium of the botanical department, is available to students. Several hundred microscope slides are at hand for use with the projection lantern, showing various drugs in cross and longitudinal sections, as well as in powdered form; also a large assortment of lantern slides, illustrating plants, drugs, prescriptions, pharmacies, and places and subjects of pharmaceutical interest; several cases of crystal models; an extensive collection of official and unofficial salts, alkaloids, drugs and medicines, besides numerous smaller collections of particular interest.

Library. The School possesses an extensive library, and is the regular recipient of the leading pharmaceutical journals and periodicals of America, England, Germany, and France.

For the convenience of students in chemistry and pharmacy a branch library is provided in the building and adjacent to the chemical and pharmaceutical laboratories, where the principal reference books and periodicals may be found.

DEGREES.

The School offers three curricula, one of two, three, and four years; leading respectively, to the following degrees: Graduate in Pharmacy; Pharmaceutical Chemist; Bachelor of Science.

Admission. See page 17.

Registration and Enrollment. See page 20.

Fees and Expenses. See page 22.

REGISTRATION—STATE BOARD OF PHARMACY.

Graduates of the School of Pharmacy may become registered pharmacists in Kansas without examination upon presenting to the State Board of Pharmacy satisfactory evidence of having had the following amount of practical experience in drug stores where physician's prescriptions are compounded:

Thirty months for graduates of the two-year course.
Twenty-one months for graduates of the three-year course.
Twelve months for graduates of the four-year course.
For detailed information apply to the State Board of Pharmacy.

POSITIONS FOR GRADUATES.

An adjunct to the Pharmaceutical Society has been established, of which the aim is to secure positions for graduates, and clerks for employers who are graduates of the School. At present the demand for clerks is greater than the supply. Applications for positions should be placed with the Secretary of the Faculty.

American Conference of Pharmaceutical Faculties. This School holds membership in the American Conference of Pharmaceutical Faculties. The object of this conference is to promote the interests of pharmaceutical education, and all institutions holding membership in it must maintain certain minimum requirements for entrance and graduation. The fact that several states, by law or through their board rulings, recognize the standards of the conference is evidence of its influence.

The Fairchild Scholarship in Pharmacy. (For stimulating research.) Mr. Samuel W. Fairchild, of New York City, offers a scholarship annually amounting to $300 in cash to further research in pharmacy in the United States. The scholarship is awarded by the Fairchild Scholarship Committee to the candidate who is best qualified, as shown by his nonpharmaceutical record, his professional pharmaceutical record and research work done as set forth in published papers, theses, etc.

CURRICULUM.

Three definite curricula are provided:

The Two-year Curriculum, leading to the degree of Graduate in Pharmacy, is confined to pharmaceutical work, and is designed to meet the requirements of those students who have had one or more years of experience in a drug store and who wish to further qualify themselves for the work of the retail pharmacy.

The Three-year Curriculum, leading to the degree of Pharmaceutical Chemist, is especially recommended to those students who have had no drug-store experience, and to those who desire a broader course of training than that afforded by the two-year course. Special opportunities are offered in this course for work in the field of drug standardization and analysis.

The Four-year Curriculum, leading to the degree of Bachelor of Science, prepares the student for graduate work. It is especially recommended to all who aim to be food and drug analysts, municipal chemists, biological chemists, sugar chemists, etc.; and allows a liberal choice of electives in the physical, chemical, and biological groups.

Connected with the School of Pharmacy is the state laboratory for drug analysis, which affords unusual opportunities for those who are especially interested in government and state positions.

Choice of Electives. The student is required to confer with his Faculty adviser. A student may not elect more than eighteen hours in each semester without special permission from the Faculty. Choice of electives should be tentatively made and submitted to the Faculty by the beginning of the junior year.

Requirements for Graduation. Students who desire to graduate are required to be in residence and regularly registered in the School of Pharmacy during their senior year, and to have completed the prescribed courses of study. Graduates of the four-year course must, in addition to the above, have completed a minimum of 120 hours total credit, including electives, and with grade of A, B or C in at least 80 hours.

TWO-YEAR SCHEDULE.

First Year.

First Semester.	Course.	Hrs.	Second Semester.	Course.	Hrs.
Materia Medica	1	3	Chemistry	3	5
Botany	..	5	Pharmacy	2	3
Chemistry	2	5	Pharmacognosy	1	5
Pharmacy	1	2	Pharmacy	3	2

Second Year.

Pharmacy	4	3	Pharmaceutical Chemistry	1	2
Pharmacy	50	4	Pharmacy	51	3
Chemistry	49	3	Pharmacy	52	2
Materia Medica	52	4	Pharmacy	53	1
Materia Medica	54	1	Chemistry	61	5
			Materia Medica	53	3

THREE-YEAR SCHEDULE.

First Year.

First Semester.	Course.	Hrs.	Second Semester.	Course.	Hrs.
English	..	3	English	..	2
Chemistry	2	5	Pharmacy	2	3
Botany	..	5	Pharmacy	3	2
Pharmacy	1	2	Foreign Language	..	5
			Chemistry	3	5

Second Year.

Materia Medica	1	3	Pharmacognosy	1	5
Bacteriology	50	5	Pharmaceutical Chemistry	1	2
Pharmacy	50	4	Chemistry	61	5
Chemistry	49	3	Pharmacy	51	3

Third Year.

Pharmacy	4	3	Pharmacognosy	50	5
Materia Medica	52	4	Pharmacy	52	2
Materia Medica	51	1	Pharmacy	53	2
Foreign Language	..	5	Materia Medica	53	3
Elective*	..	2	Elective*	..	3 or 5

* In the choice of electives the student is required to confer with his Faculty adviser. A student may not elect more than eighteen hours in each semester without special permission from the Faculty. Choice of electives should be tentatively made and submitted to the Faculty by the beginning of the junior year.

FOUR-YEAR SCHEDULE.

First Year.

First Semester.	Course.	Hrs.	Second Semester.	Course.	Hrs.
English	..	3	English	..	2
Botany	..	5	Pharmacy	2	3
Chemistry	2	5	Pharmacy	3	2
Pharmacy	1	2	Chemistry	3	5
			Pharmacognosy	1	5

Second Year.

Mathematics	..	3	Pharmaceutical Chemistry	1	2
Materia Medica	1	3	Mathematics	..	2
Foreign Language	..	5	Chemistry	61	5
Chemistry	49	5	Foreign Language	..	5

Third Year.

Pharmacy	4	3	Pharmacognosy	50	5
Bacteriology	50	5	Physics	..	5
Pharmacy	50	4	Pharmacy	51	3
Elective*	..	5	Elective*	..	2

Fourth Year.

Materia Medica	52	4	Pharmacy	52	2
Materia Medica	54	1	Pharmacy	52	1
Physics	..	5	Materia Medica	53	3
Elective*	..	5	Elective*	..	10

THE SCHOOL OF MEDICINE.

HISTORY.

In the act of the legislature establishing the University (1862) the founding of a School of Medicine was contemplated, but conditions were such that it was impossible to carry out these plans at this time. However, steps were taken, as opportunity offered, to further the formation of a School of Medicine, and in 1880 the "Preparatory Medical Course," under the administration of the College, was established. This continued until 1899, when the School of Medicine was definitely organized, and the first two years of medical instruction were offered.

In the fall of 1905 the Kansas City Medical College (founded in 1869), the Medico-chirurgical College (founded in 1896), and the College of Physicians and Surgeons (founded in 1893), and in June, 1913, the Kansas Medical College, the medical department of Washburn College, were merged into the last two years of a four-year medical course under direction of the University of Kansas. This was made possible through a gift to the University of some tracts of land in and about Rosedale, Kan., by Dr. Simeon B. Bell, in memory of his wife, Eleanor Taylor Bell. The work was first given in the laboratory and lecture rooms of the building which had formerly belonged to the College of Physicians and Surgeons and a dispensary was conducted in the building of the Medico-chirurgical College. In January, 1907, the school was moved to the new buildings which had been erected in Rosedale, on the land referred to above.

ORGANIZATION.

The Faculty. The faculty of the School of Medicine includes members who give instruction in the work of the first year and a half at Lawrence, and those giving instruction in the work of two and one-half years at Rosedale.

The Administrative Committee. The administrative committee of the School of Medicine has charge of matters affecting the School as a whole, subject to the rules of the Board of Administration. It is appointed annually by the Chancellor.

The Work at Lawrence. The work of the first year and a half is given at Lawrence. It consists of the fundamental scientific branches: anatomy, neurology, histology, embryology, physiology, pharmacology, chemistry, bacteriology, etc. The medical students have all the advantages of the University laboratories, libraries, museums, and lectures.

Students should matriculate and register for the first year and a half at Lawrence.

The Work at Rosedale. The work of the last half of the second year and the third and fourth years is intended largely to familiarize the student with the various manifestations of diseases and their treatment. Much of the work is done by the bedside, and the student has an opportunity to observe all the processes of making a diagnosis and prescribing the treatment.

EQUIPMENT.

Laboratory. For the work of the first year and one-half of the medical course at Lawrence the scientific equipment of the University is available. The greater part of this work is of a purely scientific character, and most

of the student's time is spent in laboratories. The instruction is given by men who devote themselves entirely to teaching.

The Laboratory Building at Rosedale contains teaching laboratories, private laboratories for instructors, the necessary lecture rooms, morgue and specimen rooms, animal rooms, business offices, and the library. The museum contains more than one thousand specimens, preserved in Kaiserling's fluid. A sufficient number of microscopes is provided so that each student has his own microscope. *However, students are urged to purchase their own microscopes in their first year.*

Library. The library at Rosedale is a part of the general University library and is managed as such. The files of periodicals have been carefully selected, with a view to training the student to use the best in current medical literature. There is a collection of reprints and dissertations. Carefully selected monographs and textbooks are added from year to year.

Hospital. The hospital has accommodations for sixty-five patients. Clinical material is furnished, first, by free patients (the expense being met by legislative appropriation) who are sent in from the dispensary or by the heads of the departments; second, by county cases which are sent in under the laws passed by the legislature permitting counties to send their charity cases to this hospital for treatment, the counties paying the actual expenses incurred; third, by patients who can afford to pay hospital fees and who are admitted as clinical patients on presenting a letter from their family physician stating that they cannot afford to pay for professional services and are recommended for free treatment.

Internes are appointed out of every graduating class to serve in the hospital. The internes are selected by the Administrative Committee from the applicants who have made the highest average in their work during the medical course.

Dispensary. The out-patient department is housed in the Dispensary Building. It is a two-story fire-proof building, containing a drug room, a laboratory, a lecture room, a waiting room, and consultation rooms. It is open from 10 to 12 a. m. and from 2 to 4 p. m., Sundays and holidays excepted. Here students have an opportunity to study and examine ambulant patients under competent supervision in the clinic.

Opportunities in City Hospitals. Instruction is also given at St. Margaret's Hospital of Kansas City, Kan., by permission of the Sisters who control the institution. Its capacity is three hundred beds. Fourth-year students spend two mornings a week in this hospital. The school is allowed similar privileges by the authorities of Mercy Hospital, where instruction in pediatrics and orthopedics is given.

DEGREES.

The degree of Doctor of Medicine is now granted to those satisfactorily completing the work of the four-year medical curriculum, but the right is reserved to require a fifth interne year under Faculty supervision. The faculty of the School of Medicine determines the standards, examinations, curriculum, etc., leading to the degree of Doctor of Medicine, and may change these from time to time as necessary or desirable.

Candidates for the degree of Doctor of Medicine may, under the plan for a six-year curriculum explained below, receive from the College of Liberal Arts and Sciences the degree of Bachelor of Arts, or the degree of Bachelor of Science in Medicine.

The following plan has been arranged with the College:

College students who have attained at least full senior standing and who have credit for certain subjects named below may offer in satisfaction of all or part of the requirements of the senior year the entire first

year of the medical curriculum. To such students the College will grant the degree of Bachelor of Arts.

College students who have attained at least full junior standing and who have credit for certain subjects named below may offer in satisfaction of all or part of the requirements of the junior and senior years the entire first and second years of the medical curriculum. To such students the College will grant the degree of Bachelor of Science in Medicine.

To secure the privilege of offering medical work towards the Bachelor of Arts Degree, the student must have spent one full year in residence at the College previous to registering in the School of Medicine, and must be certified to the School of Medicine by the dean of the College as having met all the requirements above named. By this transaction he becomes registered in both the College and the School of Medicine.

Students who wish to enroll in classes in the School of Medicine but who have not fulfilled the entrance requirements of that school must register in the College and become enrolled in such classes from the office of the dean of the College. Students so enrolled in medical classes are under the jurisdiction of the College in all matters relating to rules governing enrollment and scholarship, and receive no time credit towards the degree of Doctor of Medicine.

Whenever a student has completed the medical work in accordance with the foregoing provisions, the dean of the School of Medicine will submit to the dean of the College a certified statement of that fact, accompanied by the recommendation of the faculty of the School of Medicine that such student be admitted to the appropriate College degree. The student will then be named to the College faculty as a candidate for that degree.

It should be noted that several of the courses embraced in the first two years of the medical curriculum are offered to College students in the various departments concerned.

Admission. See page 17.

Registration and Enrollment. See page 20.

Fees. See page 22.

Outside Occupation. It is not advisable to attempt to carry full work in the School of Medicine and to engage in outside occupation. If it is necessary for students to earn a portion of their expenses while in school a longer time will be required to complete the course. Should students for any reason be unable to carry full work, they may, at the discretion of the Associate Dean, be withdrawn from certain courses.

CURRICULUM.

Freshman Year.

FIRST SEMESTER (at Lawrence):

Gross Anatomy.
Microscopic Anatomy.
Organic Chemistry or Biochemistry.

SECOND SEMESTER (at Lawrence):

Gross Anatomy.
Microscopic Anatomy.
Neurology.
Biochemistry or Physiology.

Students taking organic chemistry the first semester enroll in biochemistry the second semester, and take physiology in the following Summer Session.

Sophomore Year.

FIRST SEMESTER (at Lawrence):

Physiology.
Bacteriology.
Toxicology.
Introductory Pharmacology and Materia Medica.
Topographical Anatomy.

SECOND SEMESTER (at Rosedale):

Pathology.
Experimental Pharmacology.
Materia Medica, Pharmacology.
Medicine.
Surgery.
Obstetrics.
Hygiene.
History of Medicine.

Junior Year (at Rosedale).

FIRST SEMESTER:

Medicine.
Surgery.
Obstetrics.
Pathology.
Ophthalmology.
Pediatrics.
Neurology.
Dermatology.

SECOND SEMESTER:

Medicine.
Surgery.
Obstetrics.
Ophthalmology.
Phinolaryngology.
Pediatrics.
Hermatology, Serology.
Dermatology.
Chemical Pathology.
Gross Pathology.

Senior Year (at Rosedale).

FIRST SEMESTER:

Medicine.
Surgery.
Neurology.
Pediatrics.
Otorhinolaryngology.
Ophthalmology.
Orthopedics.
Gynecology.
Psychiatry.
Dermatology.
Clinical Pathology.
Specialties.

SECOND SEMESTER:

Medicine.
Surgery.
Gynecology, Obstetrics.
Neurology.
Dermatology.
Pediatrics.
Otorhinolaryngology.
Psychiatry.
Medical Jurisprudence.
Preventive Medicine.
Surgical Anatomy.
Roengenology.
Specialties.

TRAINING SCHOOL FOR NURSES.

EQUIPMENT.

The present hospital building contains sixty-five beds. The hospital receives all classes of patients except those suffering from dangerous contagious diseases or mental troubles, and shows a great variety of work. Also, since it is a teaching hospital, the character of the work shown is better adopted for gaining experience than in purely private institutions.

The close proximity of the laboratory, library, and other equipment of the School of Medicine affords great advantage in the way of medical information and instruction.

Admission. See page 18.

COURSE OF STUDY.

The course requires three years. There is a vacation of three weeks each year.

The instruction consists of two parts—the practical and the theoretical. The practical work consists of sixty hours' work each week. The theoretical instruction requires four hours of lectures or recitations each week, together with the necessary laboratory work in dietetics, etc. This theoretical instruction includes the necessary work in anatomy, physiology, hygiene, medicine, pediatrics, obstetrics, etc.

HOURS OF INSTRUCTION.

	Juniors.	*Intermediate.*	*Seniors.*
Hygiene and nursing ethics	4	..	4
Theory and demonstration—nursing	32	32	..
Anatomy and physiology	32	..	..
Materia medica	20	..	..
Ward solutions	2	..	..
Urinalysis	..	6	..
Bacteriology	16	..	..
Laboratory technic	6	..	..
Obstetrics and Gynecology	..	32	..
Chemistry	10	..	..
Pediatrics	..	15	..
Surgery	..	8	..
Bandaging	..	4	..
Dietetics	40	..	..
Nervous diseases	..	..	6
Ear, nose, and throat	..	..	5
Eye	..	..	5
Massage	..	..	15
	162	97	35

PROMOTION.

Students are advanced upon the obtaining of satisfactory grades in their practical work and upon their passing satisfactory examinations in their theoretical work. Reports on the practical work are made monthly and those on the theoretical work semiannually.

GRADUATION.

At the close of a successful course of three years the students are granted a diploma under the seal of the University of Kansas. Before they receive such a diploma they must make up lost time and demerits charged against them during the course.

EXPENSES.

Each nurse must furnish her own uniform, books and instruments.* To cover such professional expenses each member of the training school is allowed $10 a month. From this compensation is deducted, of course, the cost of material unnecessarily broken or lost. Since the board, lodging, and necessary laundry work are furnished free, the pupil nurse secures her training at little or no expenditure of money.

* These instruments consist of 1 hypodermic syringe (all glass), 1 pair bandage scissors, 1 pair of small scissors, 1 probe, 2 thumb forceps.

THE SCHOOL OF EDUCATION.

RELATION WITH THE COLLEGE OF LIBERAL ARTS AND SCIENCES.

The School of Education works in intimate relationship with the College of Liberal Arts and Sciences. The academic courses which enter into the preparation of teachers and school administrators are offered by the College, while the professional courses in education are offered by the School of Education.

RELATION WITH THE KANSAS STATE NORMAL SCHOOLS.

Students with advanced standing from any of the Kansas State Normal Schools entering the School of Education as candidates for the degree of Bachelor of Science in Education will be given credit, hour for hour, for courses in the Normal Schools approved by the joint committee of the Normal Schools and the University. What these courses are may be learned by inquiry either from the Normal School concerned or from the University. Such students will, of course, complete the specific requirements for the degree.

Graduates of the Kansas State Normal Schools whose undergraduate work has been made up of approved courses are admitted without deficiency to the Graduate School of the University as candidates for the degree of Master of Science in Education.

THREE CLASSES OF STUDENTS IN THE SCHOOL OF EDUCATION.

Three classes of students enroll in the School of Education:

1. Candidates for the degree of B. S. in Education.

These students are those seeking the greatest specialization for the work of public-school superintendent, principal or teacher. For them a highly specialized curriculum is mapped out below, designed to prepare specifically for the various sorts of positions in Kansas schools. Students pursuing this curriculum enroll in the School of Education for all their work at the beginning of the junior year. During the freshman and sophomore years, while they are enrolled in the College, students should select their courses under the advice of a member of the faculty of the College who is also a member of the faculty of the School of Education, and has been designated for that purpose. The table where such advisers are found at enrollment time is indicated by a placard having on it, "Education."

2. Candidates for the University Teachers' Diploma.

These students are candidates for the degree of A. B. or B. S. from the College or some degree from the Graduate School. The curriculum for the University teachers' diploma, given below in detail, calls for as much specialization for public-school teaching as is consistent with the other requirements of the College. Students pursuing this curriculum enroll in the College throughout their course, but enroll in the School of Education also for their courses in education. They should be advised in selecting their courses while in the freshman and sophomore years by the member of the faculty of the College designated for that purpose.

3. Candidates for State Teachers' Certificates.

These students are (*a*) College students who desire the least amount of specialization for teaching but wish to satisfy the minimum requirements for a teachers' certificate set by the State Board of Education; and (*b*) Fine Arts students who are satisfying the professional requirements in their public-school music and public-school art curriculums.

Admission. See page 19.

Fees. See page 23.

Registration. See page 23.

CURRICULUMS IN THE SCHOOL OF EDUCATION.

1. Curriculums Leading to the Degree of B. S. in Education.

Option 1.—For School Superintendents and Principals.

I. GENERAL TRAINING: (Enough work in high school and college together in the following departments to make a total of the given number of college credit hours. The high-school work is to be figured at the rate of five college credit hours per high school unit.)

	Credit hours.
English (at least 5 hours of College English)	20
Foreign Languages	15
Mathematics	10
Physical Sciences (from 2 different sciences)	10
Biological Sciences (from 2 different sciences)	10
History and Political Science	10

II. SELECTED COLLEGE COURSES:

For Freshmen and Sophomores:	
Elements of Economics	5
Elements of Sociology	3
American Government	5
Extempore Speaking	4
Philosophy and Psychology (to include general psychology, 3 hours)	5
For Juniors and Seniors:	
Public Finance, or Elements of Accounting	3
From the Following:	
Social Surveys, Rural Sociology, Municipal Sociology, Social Pathology,	4
Elementary Law, or Municipal Government	3

III. PROFESSIONAL COURSES:

Fundamentals of Education	8
Educational Organization and Administration	3
Supervision of Instruction	2
City School Administration	2
Statistical Methods and Measurements	3
The Curriculum	2
Electives in Education	10

IV. A MINOR 20

To be selected from the following:

A. ENGLISH (English language and literature, public speaking and journalism): At least 12 hours in the department of English language and literature.

B. FOREIGN LANGUAGES (Ancient languages, Germanic languages, Hispanic languages, Romance languages): 20 hours in any one language.

C. MATHEMATICS (mathematics): 15 hours in mathematics in addition to two units of high-school work in mathematics. The remainder in the following departments: mathematics, physics, chemistry, geology.

D. BIOLOGICAL SCIENCES (bacteriology, botany, entomology, physiology, zoölogy): At least 12 hours in some one department and not more than 15 hours in any department.

E. PHYSICAL SCIENCES (chemistry, geology and mineralogy, physics and astronomy): At least 12 hours in some one department and not more than 15 hours in any department.

F. Social Sciences (economics, history, political science, sociology): At least 12 hours in one department. Not more than 15 hours in either economics, political science, or sociology. 20 hours may be taken in the history department.

G. Phylosophy and Psychology (philosophy, psychology): At least 10 hours and not more than 15 hours in philosophy and psychology. The remainder in economics, political science and sociology, or in zoölogy, anatomy, and physical education.

H. Home Economics (home economics): 20 hours in home economics.

I. Physical Training and Health (physical education and athletics, physiology, bacteriology, anatomy): Physiology, 5 hours; bacteriology, 5 hours; physical education and athletics, 10 hours.

J. Fine Arts (music, drawing and design): 20 hours in one department. Not more than 5 hours in private lessons for development of technical skill.

Option II.—For Teachers.

I. GENERAL TRAINING. (See explanation for Option I.)

	Credit hours.
English (at least 5 hours of College English)	20
Foreign Languages	20
Mathematics	10
Physical Sciences (from 2 different sciences)	10
Biological Sciences (from 2 different sciences)	10
History and Political Science	10

II. SELECTED COLLEGE COURSES:

For Freshmen and Sophomores:

Elements of Economics	5
Elements of Sociology	3
Extempore Speaking	2
Philosophy and Psychology (to include general psychology, 3 hours)	5

For Juniors and Seniors:

Social Surveys, or Rural Sociology, or Municipal Sociology, or Social Pathology	2

III. PROFESSIONAL COURSES:

Either a major of 30 hours in Education or a minor of 25 hours in Education, to include the following courses:

Fundamentals of Education	8
A Teachers' Course	2 or 3
Senior Teaching	2 or 4

Electives approved by the head of the department of education.

IV. A MAJOR (if a minor in Education is used) 30
or
A MINOR (if a major in Education is used) 25

To be selected from the following:

A. English (English language and literature, public speaking, and journalism):

Major.—At least 20 hours in the department of English language and literature.

Minor.—At least 15 hours in the department of English language and literature.

B. Foreign Languages (Ancient languages, Germanic languages, Hispanic languages, Romance languages):

Major.—30 hours in some one department, but may be reduced to a minimum of 20 hours by high-school work in the given department, counted at the rate of 5 hours for each high-school unit. The remainder in any other one language.

Minor.—25 hours in some one department, but may be reduced to a minimum of 20 hours by high-school work in the given department, counted at the rate of five hours for each high-school unit. The remainder in any other one language.

C. MATHEMATICS (mathematics):

Major.—20 hours in mathematics in addition to two units of high-school work in mathematics. The remainder in the following departments: Mathematics, physics, chemistry, geology.

Minor.—15 hours in mathematics in addition to two units of high-school work in mathematics. The remainder in the following departments: Mathematics, physics, chemistry, geology.

D. BIOLOGICAL SCIENCES (bacteriology, botany, entomology, physiology, zoölogy):

Major.—At least 12 hours in some one department and not more than 15 hours in any department.

Minor.—At least 12 hours in some one department and not more than 15 hours in any department.

E. PHYSICAL SCIENCES (chemistry, geology and mineralogy, physics and astronomy):

Major.—At least 12 hours in some one department and not more than 15 hours in any department.

Minor.—At least 12 hours in some one department and not more than 15 hours in any department.

F. SOCIAL SCIENCES (economics, history, political science, sociology):

Major.—At least 12 hours in one department. Not more than 15 hours in either economics, political science, or sociology. 30 hours may be taken in the history department.

Minor.—At least 12 hours in one department. Not more than 15 hours in either economics, political science, or sociology. 25 hours may be taken in the history department.

G. PHILOSOPHY AND PSYCHOLOGY (philosophy, psychology):

Major.—At least 12 hours and not more than 15 hours in philosophy and psychology. The remainder in economics, political science and sociology.

Minor.—At least 12 hours and not more than 15 hours in philosophy and psychology. The remainder in economics, political science and sociology.

H. HOME ECONOMICS (home economics):

Major.—30 hours in the department, but may be reduced to a minimum of 20 hours by high-school work in home economics counted at the rate of 5 hours for each high-school unit. The remainder in botany, chemistry, design, and physiology.

Minor.—25 hours in the department but may be reduced to a minimum of 20 hours by high-school work in home economics counted at the rate of 5 hours for each high-school unit. The remainder in botany, chemistry, design, and physiology.

I. PHYSICAL TRAINING AND HEALTH (physical education and athletics, physiology, bacteriology, anatomy):

Major.—Anatomy, 5 hours; physiology, 5 hours; bacteriology, 5 hours; physical education and athletics, 15 hours.

Minor.—Anatomy, 5 hours; physiology, 5 hours; bacteriology, 5 hours; physical education and athletics, 10 hours.

J. FINE ARTS (music, drawing and design):

Major.—30 hours in one department. Not more than 10 hours in private lessons for the development of technical skill.

Minor.—25 hours in one department. Not more than 8 hours in private lessons for the development of technical skill.

2. Curriculum Leading to the University Teachers' Diploma.

I. GENERAL TRAINING:

The requirements for a degree from the College or the Graduate School.

II. SELECTED COLLEGE COURSES:

For Freshmen and Sophomores:

Elements of Economics	5
Elements of Sociology	3
Extempore Speaking	2
General Psychology and General Psychology Laboratory	5

III. PROFESSIONAL COURSES:

Fundamentals of Education	8
A Teachers' Course	2 or 3
Senior Teaching	2 or 4

Additional courses to make a total of fifteen semester hours, exclusive of senior teaching.

IV. A MINOR:

In addition to the College major, a minor of 20 hours selected from the following:

A. English (English language and literature, public speaking, and journalism): At least 12 hours in the department of English language and literature.

B. Foreign Languages (ancient languages, Germanic languages, Hispanic languages, Romance langnages): 20 hours in any one language.

C. Mathematics (mathematics): 15 hours in mathematics in addition to two units of high-school work in mathematics. The remainder in the following departments: mathematics, physics, chemistry, geology.

D. Biological Sciences (bacteriology, botany, entomology, physiology zoölogy): At least 12 hours in some one department and not more than 15 hours in any department.

E. Physical Sciences (chemistry, geology and mineralogy, physics and astronomy): At least 12 hours in some one department and not more than 15 hours in any department.

F. Social Sciences (economics, history, political science, sociology): At least 12 hours in one department. Not more than 15 hours in either economics, political science, or sociology. 20 hours may be taken in the history department.

G. Philosophy and Psychology (philosophy, psychology): At least 10 hours and not more than 15 hours in philosophy and psychology. The remainder in economics, political science, and sociology, or in zoölogy, anatomy, and physical education.

H. Home Economics (home economics): 20 hours in home economics.

I. Physical Training and Health (physical education and athletics, physiology, bacteriology, anatomy): physiology, 5 hours; bacteriology, 5 hours; physical education and athletics, 10 hours.

J. Fine Arts (music, drawing and design): Not permitted by College regulations.

3. Curriculums Leading to State Teachers' Certificates.

I. Three-year Certificate Renewable for Life, valid in all schools of the state, including four-year high schools. The requirements for this certificate are:

(*a*) College graduation.
(*b*) Scholarship requirements as stated below for the University teachers' diploma.
(*c*) Education as follows:

1. General psychology, 3 hours.
2. Educational psychology. (Satisfied by Education 75.)
3. Educational administration. (Satisfied by Education 76.)
4. Other education courses to make with 1, 2, and 3, a total of 18 semester hours, exclusive of senior teaching.

II. Three-year Certificate Renewable for Three-year Periods, valid in elementary schools, junior high schools, and two-year high schools. The requirements for this certificate are:

(*a*) Sixty semester hours of college credit.
(*b*) As part of the sixty hours, the following courses in Education:

1. General psychology.
2. Methods of teaching.
3 Elementary education.

III. Special Certificates in Music and in Drawing. For requirements consult the catalog of the School of Fine Arts.

SCHOLARSHIP REQUIREMENTS.

In all the work applied on the degree of Bachelor of Science in Education or on the University teacher's diploma, at least three-fourths shall be above the grade D, and at least one-third above the grade C.

ELECTIVES.

In the statements of majors and minors in the above curriculums, except where the limitation is specifically mentioned, all the work for the major or minor may be taken in a given department. Furthermore, the requirements as given are minimum requirements, and there is nothing to prevent the student from taking as much additional work in the given department as he cares to, except that he may not count more than 40 hours in any college department, nor more than 60 hours in any college group.

CREDIT FOR EDUCATION COURSES ALLOWED IN THE COLLEGE

Fifteen hours in education in addition to a course in senior teaching count for credit in the College toward the degree of Bachelor of Arts or Bachelor of Science.

Junior-Senior Work Required. In the work offered for the degree of B. S. in Education there must be at least 40 hours in courses not open to freshmen or sophomores.

Residence Requirement. The last 30 hours offered for the degree of B. S. in Education must be carried in residence.

Maximum Enrollment. Students are not allowed to enroll for more than 18 hours during any one semester.

THE TRAINING OF TEACHERS UNDER THE SMITH-HUGHES LAW.

The School of Education has been approved by state and Federal representatives for training teachers under the Smith-Hughes law. The course of study is carried out under the direction of the department of home economics, and details concerning it should be gotten from that department. Teachers so trained are given a special certificate valid for teaching in certain high schools in Kansas which are subsidized by state and Federal funds for vocational home economics instruction.

BUREAU OF SCHOOL SERVICE IN THE EXTENSION DIVISION.

One of the chief functions of the School of Education in a state university is to render such service as it can in helping school administrators and teachers of the state to solve the practical problems which arise in their work. In order to systematize the efforts of the School of Education along this line, the bureau of school service is organized.

RECOMMENDATION OF TEACHERS.

The University endeavors to assist those of its graduates who desire to teach in securing positions, and at the same time to be of service to high schools, academies, and colleges which may be in need of competent superintendents, principals, or instructors.

Records are kept of every detail of the student's qualifications for teaching, including the estimate of all college professors of the scholarship, personally, strength of character, and general adaptability of the candidate, as well as critical estimates of his teaching ability, indicated by his practice teaching in Oread Training School.

The appointment committee urges members of school boards and school administrators to come to Lawrence in person when possible, so that personal conferences with both University instructors and the candidates for

teaching may insure mutual satisfaction and be a guarantee of effective service.

The committee has adopted the policy, in its official recommendations, of attaching special importance to graduate study in the professional preparation of teachers.

OREAD TRAINING SCHOOL.

As a laboratory for the science of education there is maintained as a part of the School of Education a typical high school under the name Oread Training School. It is housed in a separate building.

Any student who has completed the eighth grade in the public schools, or its equivalent, is eligible to admission. Those who have credits for high-school work done elsewhere will be admitted to those advanced courses for which their previous work qualifies them.

GRADUATE POLICY OF THE SCHOOL OF EDUCATION.

The progressive tendency in many states is to encourage teachers and school administrators to continue in some university advanced study and research in education. The most vital discoveries must finally be made by those in the field—teachers in active service and those directing scientific experimentation under actual public-school conditions. This work creates a demand for those who have had training in the methods of investigation and in the interpretation of data collected.

The department of education provides instruction suited to the needs of graduate students in educational psychology, educational sociology, educational and mental measurements, history and philosophy of education, educational administration, and in the principles of teaching the various subjects. In accordance with the regulations of the Graduate School, students may pursue, as a major or a minor, advanced work in any of these subjects.

THE DIVISIONS.

SUMMER SESSION.

Students recognize the advantage of reducing their college attendance below the traditional four years, and their attendance at professional schools to as few years as may suffice to complete the course, in order that they may enter into their professional careers as early in life as possible.

Persons who are engaged in business, such as journalism, banking, insurance, office management, transportation and the like, feel a need for systematic study of their problems.

Teachers of all ranks are anxious to improve their professional status.

The Summer Session is organized primarily to meet the needs of these three classes. It is administered in two separate terms, a six-weeks first term and a four-weeks second term, for either one of which a student may enroll without enrolling for the other.

The first term extends from Monday, June 13, to Friday, July 22, inclusive. The second term extends from Monday, July 25, to Friday, August 19, inclusive. No classes will be held on Saturday during the session.

UNIVERSITY EXTENSION.

Through the Correspondence-study Department the following courses are offered:

First. Regular University studies which may, under approved conditions, be taken for credit toward a degree.

Second. High-school and preparatory studies for those who cannot arrange to attend the established institutions.

Third. Vocational courses, which supply knowledge and training that have a direct bearing upon the advancement and efficiency in given occupations.

Fourth. Advanced courses, designed to help those in professional or practical life to keep in touch with certain advancing conditions of science and knowledge.

Classes under regular University instructors can be offered in a limited number of communities where several desire to take up the same course. All courses offered by the Correspondence-study Department, whether taken for University credit or not, are on a uniform basis with reference to the amount of work covered. Work which is satisfactorily completed has, therefore, a definite value.

For special bulletins and detailed information, address: University Extension Division, University of Kansas, Lawrence, Kan.

ATHLETICS.

The Division of Athletics, including intercollegiate and intramural sports, has its headquarters in Robinson Gymnasium. Outdoor facilities for carrying on the athletic work are provided at McCook athletic field, on which it is planned to erect a stadium to cost $500,000, the gift of present and former students of the University and other friends of the institution as a memorial to the 120 University men who gave their lives in the World War.

Every student is required to engage in such physical exercise as may

be designated by the proper medical authority of the University as suitable to his personal needs. Work is arranged on the basis of three hours per week for freshmen and sophomores and two hours per week for all other students. All claims for exemption from the above rule must be made on regular blanks furnished by the Physical Education Department to the Exemption Board at the beginning of each semester.

The swimming pool in Robinson Gymnasium is always open. It is reserved for the use of women students Mondays and Tuesdays throughout the year, and all are expected to learn to swim. In warm weather Potter lake may be used—an artificial lake about an eighth of a mile in circumference, located on the University campus. Instructors for both men and women are provided.

The tennis courts on McCook Field are open to both men and women.

The girls' athletic field, south of the gymnasium, is equipped with five tennis courts, a hockey field with concrete boundary, an archery field, and space for other games.

LIBRARIES.

The libraries of the University contain 140,110 volumes and some 45,000 pamphlets. An annual appropriation of $18,000 is devoted to the purchase of books. The periodical room receives 1,185 periodicals and publications of learned societies, and 121 newspapers published in Kansas. The Departments of Germanic Languages, Romance Languages, Latin, English, Education, American and European History, Sociology and Economics have special reading rooms in Spooner Library.

Departmental libraries are housed in the buildings used by their respective departments or schools, each in charge of an assistant librarian.

The library of the Kansas Academy of Science, in charge of the secretary of the Academy, is housed in Fraser Hall.

MUSEUMS.

The scientific collections belonging to the University are grouped according to the teaching department in charge.

The botanical collection contains 10,000 identified and labeled specimens.

The entomological collections comprise about 27,000 species and 300,000 specimens.

Geology is represented by extensive collections of specimens in economic, petrographic and mineralogical groups.

In paleobotany and paleontology the collection is one of the most complete in America.

The zoölogical collections are rich and varied, comprising mammals, birds, fishes and reptiles.

The classical museum contains a collection of casts of Greek and Roman sculpture, *facsimile reproductions of objects of art and utility*, original coins, and photographs.

The Dyche Museum, in which most of these collections are housed, open every day in the year, is one of the most interesting places for the visitor to the University campus.

UNIVERSITY PUBLICATIONS.

The University of Kansas Science Bulletin is maintained by the University as the medium for the publication of the results of original research by members of the University.

University of Kansas Studies, Humanistic Series, is a series devoted to the presentation of the results of research along humanistic lines. The numbers are issued at irregular intervals. Each number is a complete monograph. Arrangements for exchange may be made by addressing the University Library.

The University Geological Survey Bulletins are issued from time to time as material for them is gathered.

The University Entomological Bulletins are reports issued in regular series from time to time, comprising the results of entomological investigations conducted by the University. These deal in part with applied problems of practical value referred to the University by various interests of the state, and in part with fundamental research problems presented by such investigations. These publications will be sent free to any citizen of the state upon application.

The Bulletin of the Engineering Experiment Station is the medium through which the results of investigations in engineering lines are published. Numbers are issued at irregular intervals, as material becomes available, usually two or three each year. It is under the direction of an Experiment Station staff. Communications should be addressed to the Director.

STATE SERVICE WORK.

Entomological Field Work. In conjunction with the State Agricultural College, the University conducts the field work of the State Entomological Commission.

Water Analysis. The University in coöperation with the State Board of Health maintains laboratories for the chemical and bacteriological examination of water. The special purpose of this examination is to assist Kansas communities to secure and preserve safe supplies of water.

Ceramics and Kansas Clays. The University is engaged in the examination of the clays of the state and the determination of their fitness for the fine and useful arts.

State Chemical Research. This division of the Department of Chemistry is engaged in the study of chemical problems in which the industries or the communities of Kansas may be interested.

Food and Drug Analysis. By legislative enactment it is the duty of the University to examine samples of food and drugs for their purity, and report to the State Board of Health.

Weights and Measures. The University has in its custody the sets of standard weights and measures of the state; and the deputy state sealer, who is a member of the faculty, tests weights and measures in the enforcement of the laws governing commercial standards.

Engineering Experiment Station. Numerous investigations and experiments with Kansas building stone, brick and stone paving, the purification of sewage, the properties of coal, natural gas, and oils, the calibration of metering appliances for municipal service, etc., have been conducted and the results published in a series of bulletins.

Bureau of School Service. Technical assistance is rendered to public school officials, upon their request, as far as time and facilities permit. Examining the general intelligence of children by means of approved intelligence tests, determining the status and progress of children under a given system of instruction by standardized educational tests, and making more or less complete surveys of typical school systems, are the chief services undertaken.

UNIVERSITY SURVEYS.

Biological Survey. A biological survey of the state is being conducted by the Departments of Botany, Zoölogy, and Entomology. The results are made known in special reports.

Geological Survey. The work of the geological survey is carried on through field expeditions sent out annually. The results thus far have been published in ten volumes, besides bulletins.

VOCATIONS.

A Vocations Division has been organized recently. It will collect information about vocations suitable for University-trained men and women and will make this information available for the use of students and others. It will also encourage research into the possibilities of vocational guidance.

RESERVE OFFICERS' TRAINING CORPS.

A Reserve Officers' Training Corps has been established at the University of Kansas, the purpose of which is to prepare students of the University for appointments as reserve officers in the United States army. Admission to the corps is open to any regularly enrolled student of the University, except that no one in the military or naval service of the United States, or of the several states, is eligible for membership in this corps.

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THE

UNIVERSITY OF KANSAS

LAWRENCE

ERNEST H. LINDLEY, PH. D.
Chancellor

DESCRIPTION OF COURSES

MARCH, 1921

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BOARD OF ADMINISTRATION.

Educational, Charitable, and Correctional Institutions.

MEMBERS.

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ex officio Chairman.

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FOREWORD.

The annual catalog of the University of Kansas heretofore has contained about five hundred pages, and sometimes has proven confusing to persons who wish to see, at a glance, the essentials of the facilities, expenses, admission requirements, and description of courses offered by the institution. This has been true especially in the case of high-school young people who contemplate entering college. To meet the needs of those who may wish a briefer statement than that contained in a general catalog, the University of Kansas is issuing the current catalog in three sections. In Section I the reader will find, first, a brief statement concerning the government of the University, then, in order, a general account of the equipment, University organizations, admission requirements, examinations and reports of the various schools, fees and laboratory charges, living and rooming expenses, scholarships, etc., concluding with a brief survey of the scope and work of each School and Division.

Those who desire further information may send for Section II, devoted to description of courses, and Section III, containing a list of officers of instruction, register of degrees granted, and current rosters of students.

Copies of the three sections of the catalog are placed in the hands of superintendents and high-school principals of the state.

For other information address:

THE CHANCELLOR, OR
THE REGISTRAR,
LAWRENCE, KANSAS.

UNIVERSITY CALENDAR.

Academic Year, 1920-'21.

January 1, Saturday—Close of Christmas recess.
January 24 to 29, Monday to Friday, inclusive—Semester examinations.
January 31, Monday—Beginning of second semester; enrollment in classes.
February 1, Tuesday—Beginning of class work in all departments.
February 22, Tuesday, Washington's birthday—Legal holiday.
March 25 to 28, Friday to Monday, inclusive—Easter recess.
March 29, Tuesday—Beginning of second half-semester.
May 30 to June 3, Monday to Friday, inclusive—Semester examinations.
June 5, Sunday, 8 p. m.—Baccalaureate sermon.
June 6, Monday, 8 p. m.—Sigma Xi address.
June 7, Tuesday, 10:30 a. m.—Alumni address.
June 7, Tuesday, 8 p. m.—Chancellor's reception.
June 8, Wednesday, 10 a. m.—Commencement exercises.
June 13, Monday—Beginning of six-weeks Summer Session.
July 25, Monday—Beginning of four-weeks Summer Session.

Academic Year, 1921-'22.

September 12, 13, 14, Monday, Tuesday, Wednesday—Entrance examinations and registration, Fall Session.
September 13, 14, Tuesday, Wednesday—Enrollment in classes.
September 15—Beginning of class work in all departments.
September 16, Friday—General assembly and annual address, at 10 a. m.
November 14, Monday—Beginning of second half-semester.
November 23 to 26, Wednesday to Saturday, inclusive—Thanksgiving recess, beginning Wednesday noon.
Christmas Recess—Saturday, December 17, to Saturday, December 31, inclusive.
January 23 to 27, Monday to Friday, inclusive—Semester examinations.
January 30, Monday—Beginning of second semester; enrollment in classes.
January 31, Tuesday—Beginning of class work in all departments.
February 22, Wednesday, Washington's birthday—Legal holiday.
April 4, Tuesday—Beginning of second half semester.
April 14 to 17, Friday to Monday, inclusive—Easter recess.
May 29 to June 2, Monday to Friday, inclusive—Semester examinations.
June 4, Sunday, 8 p. m.—Baccalaureate sermon.
June 5, Monday, 8 p. m.—Phi Beta Kappa address.
June 6, Tuesday, 10:30 a. m.—Alumni address.
June 6, Tuesday, 8 p. m.—Chancellor's reception.
June 7, Wednesday, 10 a. m.—Commencement exercises.
June 12, Monday—Beginning of six-weeks Summer Session.
July 24, Monday—Beginning of four-weeks Summer Session.

OFFICERS OF ADMINISTRATION.

THE UNIVERSITY.

ERNEST H. LINDLEY, Ph. D., Chancellor.
Room 103, Fraser Hall.
Hours: 10 a. m. to 12 m. and 2 to 4 p. m.

WILLIAM L. BURDICK, Ph. D., Vice President.
Room 206, Green Hall.
Hours: First semester, 11:30 a. m. to 12:30 p. m.; second semester, 9 to 10:30 a. m.

FREDERICK J. KELLY, Ph. D., Dean of Administration.
Room 119, Fraser Hall.
Hours: 10 a. m. to 12 m.

GEORGE O. FOSTER, A. B., Registrar.
Room 109, Fraser Hall.
Hours: 8 a. m. to 12 m. and 2 to 5 p. m.

ALBERTA L. CORBIN, Ph. D., Adviser of Women.
Room 114, Fraser Hall.
Hours: 9:30 to 11:30 a. m. and 2:30 to 4:30 p. m.

JOHN J. WHEELER, A. M., University Marshal.
Room 204, East Administration Building.
Hours: 9:30 a. m. to 12 m.

JOHN M. SHEA, Superintendent of Buildings and Grounds.
Room 201, Repair Shop.

THE SCHOOLS.

FRANK W. BLACKMAR, Ph. D., Dean of the Graduate School.
Room 101, East Administration Building.
Hours: 9:30 a. m. to 12 m.

JOSEPH G. BRANDT, Ph. D., Acting Dean of the College of Liberal Arts and Sciences.
Room 102, Fraser Hall.
Hours: 10:30 a. m. to 12 m.

PERLEY F. WALKER, M. M. E., Dean of the School of Engineering.
Room 112, Marvin Hall.
Hours: 9 a. m. to 12 m.

WILLIAM L. BURDICK, Ph. D., Chairman of Faculty, School of Law.
Dean's Office, Green Hall.

HAROLD L. BUTLER, A. B., Dean of the School of Fine Arts.
Room 111, Administration Building.
Hours: 9 a. m. to 12 m. and 2 to 5 p. m.

CARL A. PREYER, Mus. B., Associate Dean of the School of Fine Arts.
Room 113, Administration Building.

LUCIUS E. SAYRE, Ph. M., Dean of the School of Pharmacy.
Room 215, Chemistry and Pharmacy Building.
Hours: 10 to 11 a. m.

———, Dean of the School of Medicine.

MERVIN T. SUDLER, Ph. D., Associate Dean of the School of Medicine.
Tuesdays and Saturdays at Lawrence.
Mondays, Wednesdays, Thursdays and Fridays at Rosedale.

FREDERICK J. KELLY, Ph. D., Acting Dean of the School of Education.
Room 119, Fraser Hall.
Hours: 2 to 4 p. m.

THE DIVISIONS.

WILLIAM H. JOHNSON, A. M., Acting Director of Summer Session.
Room 121, Fraser Hall.
Hours: 11 a. m. to 12 m. and 3 to 4 p. m.

HAROLD G. INGHAM, A. B., Acting Director of University Extension.
Room 117, Fraser Hall.
Hours: 8 a. m. to 12 m. and 2 to 5 p. m.

FORREST C. ALLEN, D. O., Director of Athletics.
Room 203, Robinson Gymnasium.
Hours: 10 a. m. to 12 m.

———, Director of Libraries.

ERNEST H. LINDLEY, Ph. D., *ex officio* Director of Museums.
Room 103, Fraser Hall.
Hours: 10 a. m. to 12 m. and 2 to 4 p. m.

ARVIN S. OLIN, LL. D., Director of University Publications.

———, Director of State Service Work.

———, Director of University Surveys.

ARTHUR T. WALKER, Ph. D., Director of Vocations.
Room 112, East Administration Building.
Hours: 11:30 a. m. to 12:30 p. m. and 2:30 to 3:20 p. m.

DESCRIPTION OF COURSES.

Anatomy.

Professors: Coghill, Tracy.
Assistant Professor: Sheppard.
Assistant Instructor: Boese.
Fellow: Faris.
Laboratory Assistant: Gaumer.
Technician: Kordes.
Custodian and Technician: Stone.

A prerequisite of ten hours of biology is required for admission to the courses in anatomy. Courses 61 to 89, inclusive, are required of candidates for the degree of Doctor of Medicine. Courses 61, 62, 63, 64, 66, 89 and 90 are open as electives to candidates for other degrees.

COURSES FOR JUNIORS, SENIORS, AND GRADUATES.

61, 62, 63, 64.—Human Anatomy. Complete dissection of the human body with the aid of atlases, textbooks, models and guides, occasional lectures, and frequent quizzes. Before receiving credit for the part dissected last, the student is required to pass a final examination over all the four parts, as follows:

61.—*Upper Extremity* (90 hours). Two and one-half hours credit. Both semesters. Fee, $5.

62.—*Lower Extremity* (90 hours). Two and one-half hours credit. Both semesters. Fee, $5.

63.—*Thorax and Abdomen* (126 hours). Three and one-half hours credit. Both semesters. Fee, $10.

64.—*Head and Neck* (126 hours). Three and one-half hours credit. Both semesters. Fee, $10. Sheppard, Coghill, Boese.

66.—Topographical Anatomy (54 hours). One hour credit. Second semester. A laboratory course in human anatomy, including dissections, study of models, preparations and cross sections, with emphasis upon practical application. Fee, $5. Sheppard.

68.—Microscopic Anatomy I (80 hours). Two hours credit. First semester. Embryology, with special reference to the development of germ layers and the organ systems in mammals. Study of serial sections, dissections, and models. Fee, $3. Tracy.

87.—Microscopic Anatomy II (118 hours). Three hours credit. First semester. General histology: histogenesis and structure of the elementary tissues and their derivatives, the vascular system, blood-forming organs, and hæmatogenesis. Fee, $4. Tracy, Coghill.

87*a*.—Microscopic Anatomy III (72 hours). Two hours credit. Second semester. Splanchnology: morphogenesis and histogenesis of the thoracic and abdominal organs and of organs of internal secretion. Fee, $3. Tracy.

89.—Neurology (144 hours). Three hours credit. Second semester. A study of the central nervous system by means of dissections and microscopic methods, particularly with reference to the better-known nerve centers and conduction paths. Fee, $5. Coghill.

90.—Advanced Anatomy. Two to five hours credit. Both semesters. A critical examination of methods and results of important anatomical investigations. Open by appointment to students who are prepared to work with a considerable degree of independence.
Coghill, Tracy, Sheppard.

COURSES FOR GRADUATE STUDENTS.

100.—COMPARATIVE NEUROLOGY. Two to five hours credit. Both semesters. The nervous system of vertebrates from the point of view of correlation of structure and function in development and evolution.
Coghill.

105.—RESEARCH IN ANATOMY. Two to ten hours credit. Both semesters. The investigation of an anatomical problem selected by the student with the approval of the professor in charge.
Coghill, Tracy, Sheppard.

106.—ADVANCED EMBRYOLOGY. Two to five hours credit. Both semesters. Laboratory study of vertebrate development from the point of view of cell differentiation. Histogenesis of the embryo, development of the elementary tissues, comparison with tissue differentiation in repair and in tumors, discussion of embryological problems and their historical development; reports on literature relative to problem studies in the laboratory. Tracy.

107.—SENSE ORGANS. Two to five hours credit. Both semesters. A survey of the receptors of animals, with special emphasis upon the correlation of the structural development of the sense organs of vertebrates with the development of behavior. Sheppard.

160.—SEMINAR. Two to five hours credit. Both semesters, by appointment. Readings and discussions on current anatomical problems.
Coghill, Tracy.

Ancient Languages.

Professors: WILCOX, WALKER (Head of Department).
Associate Professors: STERLING, OLIVER, BRANDT.

EQUIPMENT. The department is well supplied with wall maps, books, photographs, slides, and antiquities illustrating many phases of ancient life. Its library equipment of some 6,000 volumes includes complete sets of the more important classical journals.

LATIN.

ADVICE AS TO CHOICE OF COURSES. Those who intend to take only five hours of Latin to satisfy a group requirement must take course 1 if they have entered with no Latin, course 2 if with one unit, course 3 if with two units, course 4 if with three units. If they have entered with four units, they may select any five hours out of courses 5, 6, 7, and 8. Course 10 is not accepted as part of the group requirement.

Except by special arrangement, those who intend to major in Latin must complete courses 5, 7, 9, and 12, before electing junior and senior courses. Course 10 should be taken early. Course 50 should be a part of the junior work.

Those who wish to do the best work in Latin, especially those who look forward to graduate study in the subject, will need Greek and a reading knowledge of French and German.

COURSES FOR FRESHMEN AND SOPHOMORES.

1.—ELEMENTARY LATIN. Five hours credit. First semester. Though intended as a preparation for the further study of Latin, this course is planned largely for those whose chief interest is in English or the modern languages. Oliver.

2.—CÆSAR (four books). Five hours credit. Second semester. Weekly exercises in Latin composition. Oliver.

3.—Cicero (six orations). Five hours credit. First semester. Weekly exercises in Latin composition.

4.—Vergil's Æneid (six books). Five hours credit. First semester. With the study of mythology and careful practice in metrical reading. Oliver.

5.—Cicero (De Senectute). Three hours credit. Second semester. With prose composition and a thorough review of the grammar. Recommended to all who expect to take further courses in Latin, and required of all who expect to prepare for teaching Latin. Oliver.

6.—Livy (one book). Two hours credit. First semester. Oliver.

7.—Horace (Odes). Three hours credit. Second semester. With careful practice in metrical reading. Must be preceded by course 4; should be preceded by either 5 or 6. Oliver.

8.—Terence (two plays). Two hours credit. Second semester. Must be preceded by either course 5 or 6. Walker.

9.—Cicero's Letters. Three hours credit. First semester. The chief emphasis is laid on the historical points involved, so that the student gets a good knowledge of the period in which Cæsar and Cicero lived. Must be preceded by five hours beyond course 4. Walker.

10.—History of Roman Literature. Two hours credit. Second semester. Mackail's Latin Literature, supplemented by lectures and assigned readings in English translations of the more important authors. Knowledge of Latin not required. Oliver.

11.—Roman Private Life. One hour credit. Second semester. Johnston's Private Life of the Romans, supplemented by occasional lectures and the use of illustrative material. Oliver.

12.—Latin Composition. Two hours credit. First semester. Part I or Part II of Nutting's Advanced Latin Composition, or an equivalent. Must be preceded by course 5. Required of all who wish a recommendation from the department as teachers of Latin. Walker.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—Advanced Latin Composition. Two hours credit. Second semester. Must be preceded by course 12. Required as part of major. Walker.

Each of the following reading courses, 51 to 59, inclusive, must be preceded by at least eleven hours from courses 5 to 12, inclusive. Not all are given in any one year.

51.—Plautus. Two hours credit.

52.—Vergil's Eclogues and Georgics. Two hours credit.

53.—Catullus, Tibullus, and Propertius. Two hours credit.

54.—Pliny's Letters. Two hours credit.

55.—Horace (Satires and Epistles). Two hours credit.

56.—Lucretius. Three hours credit.

57.—The Annals of Tacitus. Three hours credit.

58.—Juvenal. Three hours credit.

59.—Literature of the Empire. Three hours credit. A study of the history of literature under the empire, supplemented by the reading of portions of the most important works. Oliver.

Of the following five courses, 60-64, one is usually given each semester and summer session.

60.—Cæsar's Gallic Campaigns. Three hours credit. Second semester. A critical study of the Gallic War, with especial reference to military, historical, and geographical questions. Walker.

61.—Cicero's Political Orations. Three hours credit. Emphasis will be laid upon the political, legal and constitutional questions involved. This is not intended as a reading course, and may not be taken by those who have never read the orations. Brandt.

62.—Vergil. Three hours credit. A rapid survey of the contents of the Æneid, with a study of the motives of the poem and Vergil's method of handling his material. Walker.

63.—Roman Political Institutions. Three hours credit. A study of the development and form of the Roman governmental system through the republic and the early empire. The course will be conducted by lectures and assigned readings. Knowledge of Latin not required. Brandt.

64.—The Syntax of the Latin Verb. Three hours credit. A study of the uses of tenses and moods, emphasizing the origin and relationships of the constructions. Walker.

65.—Latin Poetry in Translations. Three hours credit. Second semester. Selections from the epic, lyric, dramatic, and pastoral fields will be studied, (*a*) in their relation to corresponding literary forms in Greece, (*b*) as national poetry, and (*c*) in their relation to subsequent development in these fields. Brandt.

87.—Teachers' Course in Latin. Three hours credit. First semester. School of Education and Graduate School. The work consists of discussion of the best literature on the aims and methods of teaching Latin, a critical examination of some textbooks used in secondary Latin teaching and a study of some grammatical principles. Walker.

87*a*.—Senior Teaching in Latin. Both semesters, hours to be arranged. Oliver.

COURSES FOR GRADUATES.

100.—The Topography of Rome. Two hours credit. Lectures and reading. Illustration by the use of photographs and stereopticon. Each member of the class will present written reports on subjects investigated by himself. Oliver.

101.—Investigation in Roman Political Institutions. Two to five hours credit. Given only after or in connection with course 63. The master's thesis may be worked up in connection with this course. Brandt.

102.—Latin Epigraphy. Three hours credit. This course has as its object an acquaintance with the forms and subject matter of Latin inscriptions. Brandt.

103.—Investigation in Latin Epigraphy. Two to five hours credit. Given only after or in connection with course 102. The master's thesis may be worked up in connection with this course. Brandt.

104.—Investigation in Latin Syntax. Two hours credit. Given only in connection with course 64. Walker.

105.—Investigation in Latin Syntax. Three to five hours credit. Must be preceded by course 64. The master's thesis may be worked up in connection with this course. Walker.

GREEK.

COURSES FOR FRESHMEN AND SOPHOMORES.

21.—Elementary Greek. Five hours credit. First semester. Introductory course, covering the forms, syntax, and vocabulary necessary as a foundation for reading the literature. Sterling.

22.—Xenophon's Anabasis. Five hours credit. Second semester. Application of principles learned in the preceding course, with a study of Xenophon's life and works. Sterling.

23.—Homer's Iliad. Three hours credit. First semester. Reading of as much as possible in the original, and the rest in translation. Study of Homeric forms and versification. Sterling.

24.—Plato's Apology, Crito, and selections from the Phædo and Symposium. Three hours credit. Second semester. Study of the life and work of Socrates. Sterling.

25.—Greek Tragedy. Three hours credit. First semester. The Antigone of Sophocles and Iphigenia in Tauris of Euripides. Study of the Greek theater and dramatic form. Sterling.

31.—Elementary New Testament Greek. Five hours credit. Second semester. No previous knowledge of Greek required. Sterling.

32.—New Testament I. Two hours credit. First semester. Reading of as much of the New Testament in the original as possible. Prerequisite, course 31, or 21 and 22. Sterling.

33.—The Greek in English. Three hours credit. First semester. A study of English etymology, with especial reference to Greek. Only so much Greek is studied as is necessary for the end in view. This course may not be used to satisfy a Freshman-Sophomore group requirement. No previous knowledge of Greek required. Sterling.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

71.—Plato's Gorgias or Republic. Three hours credit. Second semester. Outside reading of other dialogues of Plato. Study of the life and thought of his time. Sterling.

72.—Lyric Poetry. Two hours credit. Second semester. Selections from elegiac, iambic, and melic poetry. Brandt.

73.—Greek Comedy. Two hours credit. First semester. The Clouds and Frogs of Aristophanes. Study of the origin and development, form and content of Greek comedy. Sterling.

74.—Homer's Odyssey. Three hours credit. Reading of the whole book in the original, with critical studies of select portions.

75.—Alexandrian Literature. Three hours credit. Theocritus, Apollonius Rhodius, and the Anthology. Study of pastoral poetry and the late epic, and their influence on Latin and later poetry.

No knowledge of Greek is required for the following courses:

85.—Greek Poetry in Translations. Three hours credit. First semester. The epic and lyric poetry of the classic and Alexandrian ages. Study of form and content and influence on later poetry. Brandt.

86.—The Greek Drama in Translations. Two hours credit. Second semester. Ten to twelve dramas of Æschylus, Sophocles, Euripides, and Aristophanes are read and discussed from the points of view of form and content and influence on later and modern dramas. Brandt.

87.—Greek Architecture. Two hours credit. First semester. This course includes the fundamental principles of all styles, with special reference to the survivals and revivals of Greek elements. The result ought to be a knowledge of all historic styles, and not simply the Greek. Brandt.

88.—Greek Sculpture and Painting. Three hours credit. Second semester. This course includes, for purposes of comparison and appreciation, a summary view of the sculpture and painting of later and modern times. Brandt.

Bacteriology.

Professor: SHERWOOD (Chairman of Department).
Instructors: TREECE, DOWNS, MCNAUGHT.

EQUIPMENT. The laboratories are provided with satisfactory equipment for a limited number of students, both undergraduates and graduates. For those students doing research work along sanitary lines, the water and sewage laboratory is available by special arrangement and is equipped for both bacteriological and chemical investigation.

ADVICE AS TO CHOICE OF COURSES. Course 50 is a prerequisite for all subsequent courses in bacteriology. Each is directly concerned with the application of bacteriology to human problems. Students who plan to study bacteriology with the expectation of teaching the subject, or of becoming trained technicians for public-health and hospital laboratories, should complete the following courses in other departments: Inorganic chemistry, qualitative analysis, organic chemistry, quantitative analysis, biological chemistry, elementary zoölogy, animal histology, parasitology. Students expecting to go into medicine should not fail to enter the section of general bacteriology that is prescribed for medical students.

COURSES OPEN TO COLLEGE JUNIORS AND SENIORS, TO STUDENTS IN PHARMACY AND MEDICINE, AND GRADUATE STUDENTS.

50.—GENERAL BACTERIOLOGY. Five hours credit. Both semesters and summer school. Lectures and laboratory work. Prerequisite, Chemistry I or its equivalent. The lectures are largely illustrated and treat problems connected with general bacteriology and with the relation of bacteria to public health. Laboratory work deals with the preparation of media, cultural and staining methods, diagnostic tests, and the examination of bacteria that bear some relation to everyday life.
Treece and Downs.

50M.—PATHOGENIC BACTERIOLOGY AND PUBLIC HEALTH. Five hours credit. First semester and summer school. A section of general bacteriology designed especially for medical students, but open to others with consent of instructor. Sherwood and Treece.

53.—BACTERIOLOGY OF FOODS AND WATER. Three hours credit. Second semester. Examination of milk, oysters, meats, etc., with supplementary lectures. Treece.

53E.—SANITARY WATER ANALYSIS. Three hours credit. First semester. A course in bacteriology designed for students in sanitary engineering, but open to others who have had Chemistry 3, with instructor's consent. McNaught.

54.—DIAGNOSTIC BACTERIOLOGY. (Formerly Special Methods in Bacteriology.) Five hours credit. First semester and summer school, 1922. Laboratory work embraces diagnostic technic, such as that used in hospitals and public-health laboratories. Downs and McNaught.

55.—INDUSTRIAL BACTERIOLOGY. Five hours credit. Second semester. Prerequisite, Organic Chemistry.

57.—IMMUNITY. Five hours credit. Second semester and summer school, 1921. Lecture and laboratory study of hemolysins, precipitins, agglutinins, bacteriolysins and complement fixation.
Sherwood and Downs.

58.—PATHOGENESIS. Five hours credit. First semester. Lecture and laboratory study of pathogenic conditions caused by bacteria. Prerequisite, Animal Histology. Sherwood.

60-62.—BACTERIOLOGICAL JOURNALS. One hour credit each. Course 60 first semester, and course 62 second semester and summer school. Study of current bacteriological literature. Sherwood.

61.—Special Problems in Bacteriology. Two to ten hours credit. Both semesters and summer school. Sherwood.

COURSE OPEN TO GRADUATES.

100.—Research in Bacteriology. Two or more hours credit. By appointment. Both semesters and summer school. Sherwood.

Biochemistry.

Professor: Nelson.
Assistant Professor: ———.
Instructor: Kiefer.

College students desiring to major in biochemistry should elect (1) courses 2, 3, 51, 61, and 62 in the Department of Chemistry; (2) ten credit hours from courses in biochemistry, and (3) ten credit hours from approved junior and senior courses in the departments of anatomy, bacteriology, botany, chemistry, home economics, physiology or zoölogy.

COURSES FOR JUNIORS, SENIORS AND GRADUATE STUDENTS.

50.—Biological Chemistry. Four or six hours credit. Each semester. Prerequisites, General and Organic Chemistry. (The Medical School requirement is six hours.) Nelson, Kiefer and assistants.

51.—Advanced Biological Chemistry. Two, three or five hours credit. Either semester. Nelson.

COURSES FOR GRADUATE STUDENTS.

101.—Research in Biological Chemistry. Two or more hours credit. Throughout the year. Nelson.

102.—Biochemical Seminar. Weekly meetings. One hour credit. Each semester. Prerequisites, a reading knowledge of French and German. Nelson.

103.—Colloid Chemistry. Two hours credit. First semester. A study of colloids and the colloidal state of matter. Special emphasis is laid on the application of colloid chemistry to problems in biochemistry. Nelson.

Botany.

Professor: Stevens (Chairman of Department).
Associate Professor: Mix.
Assistant Professors: Charles, Sterling.
Preparator and Demonstrator: Peace.

Equipment. The equipment embraces microtomes, paraffin baths, etc., for histological work, simple and compound microscopes for each student, individual sets of apparatus for physiological experiments, and equipment for advanced work in plant morphology, physiology and pathology, a good herbarium for reference in taxonomy, sets of microscopic slides for each student, and abundant morphological material. There is a departmental library adjoining the laboratories.

Advice as to Choice of Courses. Courses 1 and 2 are elementary in their respective fields and are without prerequisites. Not more than one of these elementary courses should be taken without consultation with the department. Students who are preparing to teach botany should take courses 1, 2 or 52, 3, 4, 50, 60, 61, 62, and bacteriology 50. Courses 2 or 52 and 55 in botany and 50 in bacteriology afford a good basis for

sanitation. Courses 3, 60, and 62 are fundamental to scientific plant culture. Botany 1 or 2, 4, 5, and 61 and bacteriology 50 would be especially useful to students in home economics. Courses 3, 4, 50, 61, and 62 are fundamental to arboriculture, city forestry, and the horticultural side of landscape and garden design.

COURSES FOR FRESHMEN AND SOPHOMORES.

1.—THE LIVING PLANT. Five hours credit. Both semesters. What plants reveal about the fundamental problems of life, and their relation to our welfare. Lectures, demonstrations, laboratory and recitations. Fee, $1. Stevens, Charles, Mix.

2.—GENERAL MORPHOLOGY OF PLANTS. Five hours credit. First semester. Lectures, recitations, and laboratory. A general survey of the great groups of plants to show the important steps in the evolution of the plant kingdom. Fee, $2. Charles.

3.—PLANT PHYSIOLOGY. Five hours credit. Second semester. Lectures, recitations and laboratory. The physiological activities of plants. Intake and outgo of material and energy, photosynthesis, digestion, translocation, storage, assimilation, respiration, excretion, irritability, and tropic responses, etc. Prerequisite, course 1 or its equivalent, or 2. Desirable antecedent, chemistry. Fee, $2. Mix.

4.—PLANT ANATOMY. Five hours credit. First semester. Plant tissues with special reference to their development and functions; plant products, their origin and physiological and biological significance; histological technic. Laboratory work, recitations and lectures. Prerequisite, course 1 or its equivalent, or 2. Fee, $2. Stevens.

5.—ECONOMIC PLANT GEOGRAPHY. Two hours credit. Second semester. The effect of climate and soil conditions of different regions of the earth on the natural plant life of these districts and their relation to the crop plants of economic value for timber or for the world's supply of food. Charles.

6.—PHARMACAL BOTANY. Five hours credit. First semester. Study of plant tissues, histological technic, and morphology of the flowering plants. Laboratory and lectures. Sterling.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—SYSTEMATIC BOTANY. Five hours credit. First semester. Lectures, recitations and laboratory. Field trips Saturday mornings till November. Classification of flowering plants, with field study of local flora, and preparation of an herbarium. Prerequisite, course 1 or 2, or equivalent. Fee, $1. Charles.

52.—GENERAL MORPHOLOGY OF PLANTS. Five hours credit. Second semester. Lectures, recitations and laboratory. A study of types of plants to show the development of the plant kingdom. Fee, $2. Charles.

55.—MORPHOLOGY OF ALGÆ. Three or five hours credit. Second semester. An advanced course in the algæ with particular attention to life histories, local distribution, and relation to water supplies. Prerequisite, course 2 or equivalent. Fee, $2. Charles.

56.—MORPHOLOGY OF FUNGI. Three hours credit. Second semester. Lectures, recitations, and laboratory work on the structure and life histories of fungi. Prerequisite, course 1 or 2, or equivalent. Fee, $2. Charles.

57.—MORPHOLOGY OF BRYOPHYTES AND PTERIDOPHYTES. Three or five hours credit. First semester. An advanced course on the development and classification of liverworts and mosses. Lectures and laboratory work. Prerequisite, course 2 or equivalent. Fee, $2. Charles.

58.—Problems in the Morphology of Spermatophytes. Five hours credit. Both semesters. A study of the forms and structures of plant members under different environments. Laboratory work, field work, and reading. Fee, $1. Stevens.

59.—Problems in the Morphology of Thallophytes and Archegoniates. Five hours credit. Both semesters. The structure, development, or distribution of plants of these groups. Laboratory, field work, and reading. Prerequisite, course 2 or its equivalent, and advanced work in the group to be investigated. Charles.

60.—Agriculture. Three hours credit. First semester. The scientific principles underlying plant production and soil management. Must be taken in conjunction with entomology 60. Prerequisite, course 1 and entomology 1, or their equivalents. Fee, $2. Mix.

61.—Trees and Shrubs. Three hours credit. Second semester. The nature, planting, and care of the trees and shrubs of special importance for home grounds, streets, and parks, and introduction to landscape design. Lectures, reading, and field work. Stevens.

62.—Plant Pathology. Five hours credit. First semester. Diseases of cultivated plants, their nature, cause and control. Lectures, recitations, and laboratory work. Prerequisite, course 1 or its equivalent, or 2. Desirable antecedent, course 3. Fee, $2. Mix.

64.—Problems in Plant Pathology. Three to five hours credit. Both semesters. Original investigation of problems in plant pathology. Prerequisites, courses 3, 62 or its equivalent, and bacteriology 50. Fee, $2. Mix.

COURSES FOR GRADUATES.

100.—Morphology and Physiology of the Plant Cell. Five or ten hours credit. First and second semester, or both semesters. Cell characters, adaptation to specific functions, and behavior under varying environment; nuclear and cell division; reproduction. Fee, $1. Stevens.

101.—Plant Ecology. Three hours, five hours, or ten hours credit. Throughout the year. The relation of plants to their environment. Field work and reading. Stevens.

102.—Research in Plant Anatomy. Five or ten hours credit. Both semesters. Fee, $1. Stevens.

104.—Botanical Conference. One hour credit. Both semesters. Review and discussion of current botanical work. Reports on assigned subjects.

150.—Systematic Botany. Five hours credit. First semester. Fee, $1. Charles.

155.—Morphology of Thallophytes. Three hours or five hours credit. Second semester. Fee, $1. Charles.

156.—Morphology of Fungi. Three hours credit. Second semester. Fee, $2. Charles.

157.—Morphology of Bryophytes and Pteridophytes. Three hours credit. First semester. Fee, $2. Charles.

158.—Problems in the Morphology of Spermatophytes. Five hours credit. First or second semester, or both. Fee, $1. Stevens.

159.—Problems in the Morphology of Thallophytes and Archegoniates. Five hours credit. First or second semester. Fee, $1. Charles.

160.—Agriculture. Three hours credit. First semester. Fee, $2. Mix.

161.—Trees and Shrubs. Three hours credit. Second semester. Stevens.

162.—Plant Pathology. Five hours credit. First semester. Fee, $2. Mix.

164.—Problems in Plant Pathology. Three to five hours credit. Both semesters. Fee, $1. Mix.

Chemistry.

Professors: Bailey, Cady, Dains, Allen.
Associate Professor: Stratton.
Assistant Professors: Long, Brewster, Elsey, Werner, Wertheimer.
Instructors: White, Jones, Buffington, Asendorf, Law.

Equipment. The department is well supplied with the necessary and unusual apparatus for lecture, illustration and demonstration, for laboratory work in the undergraduate courses together with adequate equipment for effective research work in physical, organic, inorganic, analytical, industrial and metallurgical chemistry. The liquid-air plant offers somewhat unusual opportunities for investigation at low temperatures. The department possesses a library of 3,500 volumes, consisting of the more important sets of periodicals and standard works of reference.

Advice as to Choice of Courses. Students desiring to become professional chemists should select courses 2, 3, 51, 62, 63, 71 and 90. The remainder of the possible forty hours in chemistry should be devoted to the subjects which will best fit each student for his chosen work.

Those desiring to teach should select not less than twenty-five hours, which should include courses 2, 3, 51, 60, 61 or 62, and 80 or 81.

For business or general culture, or as a foundation for work in botany, zoölogy, geology, mineralogy or physics, at least 2, 3 and 61 should be studied; for medicine, 2, 3 and 49 or 51.

Students majoring in chemistry should have completed ten hours of physics, mathematics through calculus, and elementary courses in German, French, bacteriology and geology.

The department will gladly confer with students majoring in chemistry and advise them as to the choice of courses best adapted to individual needs.

Fees will be charged in the various courses to cover cost of materials, breakage, etc.

COURSES FOR FRESHMEN AND SOPHOMORES.

1.—General Chemistry. Five hours credit. Both semesters and summer. Lecture and recitations, M. W. F.; laboratory, Tu. Th. For students who wish to get a general knowledge of chemistry in five hours. Not prerequisite for Chemistry 2. If a student decides to go on with chemistry after taking Chemistry 1, he must take five hours of Chemistry 2 and will receive eight hours of credit for the two courses. No one is admitted to course 1 who has presented chemistry for entrance.
Stratton and assistants.

2.—Inorganic Chemistry. Five hours credit. Both semesters and summer. Lectures and recitations, M. W. F.; laboratory, Tu. and Th. This course or 2E is a prerequisite for all other chemistry courses except Chemistry 1, 4, 60. Cady, Elsey, Jones and assistants.

2E.—Inorganic Chemistry. Four hours credit. Both semesters and summer. Lectures and recitations, M. W. F.; laboratory, Tu., Th. For civil, mechanical and electrical engineers. Class work the same as Chemistry 2, but only one laboratory period per week.
Cady, Elsey, Jones and assistants.

3.—Inorganic Chemistry and Qualitative Analysis. Five hours credit. Both semesters and summer. Lectures and recitations, Tu. Th.; laboratory, M. W. F. Prerequisite, course 2.
Cady, Jones and assistants.

3E.—Inorganic Chemistry and Qualitative Analysis. Four hours credit in the School of Engineering. Lectures and recitations, Tu. Th.; laboratory, M. W., or W. F. Prerequisites, 2 or 2E. Class work as in 3, but one less laboratory period per week. Cady, Jones and assistants.

4.—Elementary Organic and Sanitary Chemistry. Five hours credit. First semester. Lectures and recitations, M. W. F.; laboratory work, Tu. Th. Designed for students preparing for home economics. Not a substitute for 61 or 62. Prerequisite, Chemistry 1. Stratton.

5E.—Engineering Chemistry. Three hours credit. Second semester. Recitations, Tu. Th.; laboratory, F. Required of mechanical and civil engineering students. Prerequisite, 2E. Cady and assistants.

49.—Quantitative Analysis. Two, three or five hours credit. Both semesters and summer. Prerequisite, course 3. Allen, Werner.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

*51.—Quantitative Analysis I. Two, three or five hours credit. Both semesters and summer. A general course covering the fundamental principles of gravimetric and volumetric analysis. Prerequisite, course 3.
Allen, Werner, Wertheimer.

†52.—Quantitative Analysis II. Two, three or five hours credit. Both semesters and summer, by appointment. In connection with this work some specialty, such as cement, glass, or packing-house industry, rock analysis, paint analysis, etc., may be pursued. Prerequisite, course 49 or 51. Allen, Werner.

†52.—Sanitary Water Analysis. Three hours credit. Second semester. Laboratory work in the sanitary analysis of water and sewage. Prerequisite, course 51. Allen.

†52B.—Boiler-water Analysis. Two hours credit. Second semester. Laboratory work in the analysis and softening of boiler waters. For engineers only. Prerequisite, course 51.

†52C.—Gas Analysis. Two hours credit. First semester and summer. By appointment. Prerequisite, course 51. Allen.

†52D.—Food Analysis. Three hours credit. Both semesters, by appointment. Lectures and laboratory. Prerequisites, courses 51 and 61 or 62. Long.

†52E.—Oil Analysis. Two hours credit. First semester and summer, by appointment. The examination of petroleums and products. Prerequisite, course 51. Allen.

†52F.—Iron and Steel Analysis. Two hours credit. Second semester, by appointment. Analysis of special steels and alloys. Prerequisite, course 51. Allen.

†52G.—The Chemistry of Milling and Baking. Two hours credit. Second semester, by appointment. Designed to meet the requirements of chemists desiring to carry on control work in the milling industry. Prerequisites, courses 51 and 61 or 62. Long.

†52H.—Industrial Organic Analysis. Two hours credit. Second semester, by appointment. Includes analyses of soap, paper, leather, starches, etc. Prerequisites, courses 51 and 61 or 62. Werner.

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* Courses 60 and 69 do not count for graduate credit, and courses 51. 61 and 62 are accepted for graduate credit only for students majoring in other subjects than chemistry.

† Not more than ten hours of work should be taken by College students majoring in chemistry from courses 49, 51, 52 and 52A to 52J, inclusive, except upon special permission from the department faculty, which will be granted only under exceptional circumstances.

†52I.—Wet Assaying. Two hours credit. Second semester and summer, by appointment. Prerequisite, course 51. Allen.

†52J.—Electrolytic Estimation of Metals. Two hours credit. Second semester, by appointment. For engineers only. Prerequisite, course 51. Allen.

53.—Assaying and Metallurgical Analysis. Three hours credit. Second semester. The course will cover the fire assay of gold, silver, copper and other metals. Wertheimer.

*60.—Chemistry of Food Products. Five hours credit. Second semester. This is intended as a general course for students who are interested in food supply, and includes a study of the source, composition and use of foods. Attention is also given to the world's supply of food and its manufacture and preparation for the market. Prerequisite, course 1. Bailey.

*61.—Elementary Organic Chemistry. Five hours credit. Both semesters and summer. Designed to cover briefly the aliphatic and aromatic series, and to fulfill the requirement in organic chemistry in the Medical School. Prerequisite, courses 2 and 3. Dains, Brewster.

*62.—Organic Chemistry I. Five hours credit. First semester. Recitations, M. W. F.; laboratory, Tu. Th. mornings or afternoons. For students who wish a more detailed knowledge of organic chemistry. Prerequisite, courses 2 and 3. Dains, Brewster.

63.—Organic Chemistry II. Five hours credit. Second semester and summer. Recitations, M. W. F.; laboratory, Tu. Th. mornings or afternoons. Aromatic series. Prerequisite, course 62. Dains, Brewster.

* 69.—Toxicology. One hour credit in School of Medicine or Pharmacy. First semester. F. Lectures on poisons; their history, source, properties, methods of detection, and antidotes. Must be preceded by fifteen hours of chemistry. Bailey.

71.—Physical Chemistry, General. Five hours credit. First semester. A general course in theoretical and physical chemistry. Lectures and recitations, M. W. F.; laboratory, Tu. Th. Prerequisites, courses 2, 3, 51, 61 or 62, and satisfactory preparation in general physics and calculus. Cady, Elsey.

72.—Physical Chemistry, Electro Chemistry. Five hours credit. Second semester. A course paying special attention to electrochemistry. Lectures and recitations, M. W. F.; laboratory work, Tu. Th., or M. W. Prerequisite, course 3, and satisfactory preparation in general physics and calculus.

80.—Inorganic Industrial Chemistry. Three hours credit. Second semester. A study of the inorganic industries. Prerequisites, 15 hours credit, including courses 2 and 3. Allen.

81.—Organic Industrial Chemistry. Three hours credit. First semester. A study of the organic industries. Prerequisites, courses 2, 3, and 61 or 62. Allen.

‡ 90.—Metallurgy I. Three hours credit. First semester. General metallurgy; the metallurgy of iron and steel. Prerequisite, course 3 or 5E. Wertheimer.

‡ 91.—Metallurgy II. Three hours credit. Second semester. The metallurgy of lead, zinc and copper, followed by that of silver, gold, mercury and tin. Prerequisites, courses 3 and 51. Wertheimer.

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* Courses 60 and 69 do not count for graduate credit, and courses 51, 61 and 62 are accepted for graduate credit only for students majoring in other subjects than chemistry.

† Not more than ten hours of work should be taken by College students majoring in chemistry from courses 49, 51, 52 and 52A to 52J, inclusive, except upon special permission from the department faculty, which will be granted only under exceptional circumstances.

‡ For graduate credit, Physical Chemistry 71 must precede or be taken concurrently with this course.

92.—METALLURGICAL LABORATORY. Two hours credit. First semester, by appointment. This course includes high temperatures, measurements, study of roasting, reduction, oxidation, amalgamation, chlorination, cyaniding and leaching. Prerequisite, course 90 or 91. Wertheimer.

‡ 93.—GENERAL METALLURGY. Two hours credit. First semester. Physical properties of metals and alloys, thermal analysis, pyrometry, refractories, slags, matte, bullion, typical metallurgical processes. Prerequisites, courses 2, 3, 51. Wertheimer.

95.—METALLOGRAPHY. Three hours credit in the Engineering School. Second semester, by appointment. Laboratory and conferences. Prerequisite, Metallurgy 90 or 93. Wertheimer.

99.—TEACHERS' COURSE IN CHEMISTRY. Two hours credit. Second semester. Stratton.

99*a*.—SENIOR TEACHING IN CHEMISTRY. Both semesters. Stratton.

COURSES FOR GRADUATES ONLY.

Prerequisites. Students who expect to take a graduate major in chemistry and others who wish to do advanced work for graduate credit must present not less than the substantial equivalent of undergraduate courses 2, 3, 51 and 61 or 62 before beginning their graduate work. The department feels that before it can recommend a candidate for an advanced degree his undergraduate and graduate work must have covered satisfactorily the fundamental courses in analytical, organic and physical chemistry.

Fees. In laboratory courses a fee sufficient to cover expenses will be charged.

100.—ADVANCED QUALITATIVE AND SPECTRAL ANALYSIS. Three hours credit. Second semester, by appointment. This course covers the ordinary methods of qualitative analysis as applied to the rarer elements and compounds, as well as training in the use of the spectrograph in the qualitative and quantitative examination of substances. Cady.

101. MICROCHEMICAL ANALYSIS. Two hours credit. Second semester, by appointment. A laboratory course in qualitative analysis, identifying the substances by means of the microscope. Prerequisite, course 51. Allen.

102.—ADVANCED TOPICS IN INORGANIC AND PHYSICAL CHEMISTRY. Two hours credit. Either semester. The subjects for 1921-'22 are chemistry of nitrides, carbides, borides, etc., the structure and transmutation of the atom. Cady, Elsey.

105.—RADIOCHEMISTRY AND RADIOACTIVITY. Three hours credit. Second semester, alternate years. Lectures, recitations and laboratory experiments dealing with the chemistry of the radioelements, their relation to the periodic system, and the transformations. It is recommended that the course be preceded by course 153 in the Department of Physics. Cady.

110. HISTORY OF CHEMISTRY. Two hours credit. Second semester. A course in the history of chemistry and the development of chemical theories. Lectures, library work, and the presentation of reports. Dains.

111.—CHEMICAL SEMINAR. One hour credit. Each semester, by appointment. A review of recent literature. Required of all graduate students majoring in chemistry.

First semester: Inorganic and physical chemistry. Cady.
Second semester: Organic chemistry and allied topics. Dains.

155.—ANALYTICAL CHEMISTRY RESEARCH. Five hours credit. Both semesters. Bailey, Allen.

‡ For graduate credit, Physical Chemistry 71 must precede or be taken concurrently with this course.

157.—Physicochemical Methods of Analysis. First semester, by appointment. Methods of physical chemistry in analysis. Cady.

164.—Organic Preparations (Advanced). Two or five hours credit. Either semester and summer, by appointment. Must be preceded by course 63 or its equivalent. A study of organic synthetical methods and ultimate organic analyses. Dains, Brewster.

165.—Organic Chemistry. Five hours credit. Either semester and summer. A research course. This course offers, to those who have the proper preparation, a chance for extended study and original investigations. Dains.

166.—Advanced Topics in Organic Chemistry. Two hours credit. First semester. Dains.

167.—Advanced Topics in Organic Chemistry. Two hours credit. Second semester. Dains, Brewster.

172.—Electrochemistry. Five hours credit. Second semester, by appointment. A laboratory course on the reactions involving oxidation and reduction, electrosyntheses and decompositions, the preparation of chemicals, the reduction of metals from their ores, and the purification of metallurgical products. Prerequisite, course 72. Elsey.

173.—Chemical Statics and Dynamics. Three hours credit. Second semester. A study of the manner in which chemical reactions take place, and the equilibria which result, from the standpoint of reaction velocities. Prerequisites: General Physics, Calculus, Physical Chemistry 71 or 72 and Organic Chemistry. Cady.

174.—The Phase Law. Two hours credit. Second semester. A study of chemical equilibria from the standpoint of the phase law of Gibbs. Prerequisite, course 71. Cady.

175.—Physical Chemistry of Colloids. Two hours credit. A study of colloids and their application. Cady.

176.—Physical Chemistry. Five hours credit. Either semester, by appointment. A research course extending over two or more semesters. An opportunity is offered, to those who are sufficiently advanced, to carry on investigations in this branch of chemistry. Cady.

The profession of chemistry and chemical engineering is affording an increasing number of openings for men with a longer and more thorough training than is given in the four-year college or chemical engineering course. For this reason the department would call attention to the opportunities for graduate work in this institution leading to the degree of Master of Arts or Master of Science.

Without designating arbitrarily such a course, the department would suggest the following outline for the thirty hours of graduate work:

First: A minor, of not over ten hours, to be chosen from the fields of physics, geology, engineering, mathematics, or natural science.

Second: The major subject—chemistry, twenty hours. This requirement is to be satisfied by the election of a number of carefully selected graduate courses, a considerable portion of which should be classroom rather than laboratory work, and the completion of a thesis, requiring not over one-third of the student's time, which will demand the solution of some research problem along the line of pure or applied chemistry. This latter is an essential requirement for the degree, since experience of this nature is of special value for on going into practical scientific work.

Correspondence Study.

Study through correspondence is offered in nearly all departments of the University. Write for special bulletin.

Economics and Commerce.

Professors: BOYNTON (Chairman of Department), ISE.
Assistant Professors: JENSEN, NEWMAN, FLETCHER.
Instructors: HEATH, HENDERSON.

REQUIREMENTS FOR A MAJOR. The following courses are required of all majors in the department:

1. Economic and Financial History of the United States (3).
2. Money (50) and Banking (51).
3. Public Finance (61 and 62).
4. Advanced Principles of Economics (92).

For major students five hours of work from those courses numbered less than fifty are prerequisite to all the courses numbered 50 or over. In addition, certain courses numbered 50 or higher are to be preceded by specified courses among those numbered less than 50. Consequently, students should select their freshman and sophomore courses with a view to satisfying the requirements for the advanced courses which they wish to take later.

ADVICE AS TO COURSES. Major students may but are not required to take course 1. They are urged to select at least one course in accounting. Their attention is also invited to supporting courses in other departments or schools, among which may be mentioned:

1. Political Science, courses 10, 82, 83, 84.
2. History, courses 3-6, 56.
3. Sociology, courses 1, 57, 61, 65.
4. Mathematics, courses 2*a* or 2*c* and 10.
5. Journalism, courses 55, 56, 57.
6. English Language and Literature, courses 50, 51, 52.
7. School of Law, courses 2, 5, 6, 9, 13, 16, 31.

SUGGESTED GROUPINGS OF COURSES. Students will elect additional courses with reference to their principal interest, as suggested in the following groupings with reference to a few of the more common fields of work:

1. *Professional economist:* Courses 6, 8, 55, 56, 64, 65, 68, 70, 71, 73, 88, 91. Students in this group should also consider courses in the departments of history, political science, sociology and philosophy. Ability to read French and German should be acquired as early as possible by those who intend to do graduate work.

2. *Commercial teaching:* Courses 4, 8, 54, 55, 56, 57, 60, 64-67, 68, 69, 70, 72, 85, 88. Typewriting and stenography are often important, but must be acquired elsewhere.

3. *Banking:* Courses 51, 52, 57, 60, 64, 65, 68, 70, 72, 80, 85, 88; also Mathematics 10, and several courses in the School of Law.

4. *Accounting:* Courses 53-7, 60, 64-67, 68, 69, 88; also Mathematics 10, and several courses in the School of Law.

5. *Marketing:* Courses 4, 8, 55, 57, 60, 64, 65, 68, 69, 70, 80, 85, 88; also Journalism 55-57, and courses 2, 6 and 9 in the School of Law.

6. *Insurance:* Courses 53, 57, 60, 64, 65, 68, 69; also Mathematics 10, and courses 2, 9 and 13 in the School of Law.

7. *Secretarial work:* Courses 4, 8, 54, 57, 60, 64, 65, 68, 69, 70, 72, 85, 88. Typewriting and stenography are often required, but must be acquired elsewhere.

8. *Public service:* Courses 4, 8, 55, 56, 57, 59, 60, 64, 65, 68, 70, 71, 88, 91.

Many students will later find themselves in positions such as personnel officer in industrial plants, expert adjuster of industrial disputes regarding wages or rates, expert statistician and investigator. Regarding the choice of courses to train for such work the members of the department should be consulted.

COURSES.

1.—Elements of Economics. Five hours credit. Both semesters. A concrete analytical study of the laws governing man in his relation to wealth. Attempts to furnish the scientific basis for an understanding of economic affairs. Not open to juniors and seniors. (See 90.)
Ise, Jensen, Newman, Fletcher, Heath.

1 E.—Elements of Economics. Three hours credit. Both semesters. Attempts to explain the general laws of man's relation to wealth. Special attention to parts of the subject of particular interest to engineers, such as corporations, the economic activities of municipalities, and labor problems. For engineers. Ise.

2.—Economic History of England. Three hours credit. First semester. A study of the general development of agriculture, industry, and commerce in England from the tenth century to the present time. The course is designed to show the gradual evolution of an industrial society and to trace those changes by which modern England has attained her present economic position. Boynton.

3.—Economic and Financial History of the United States. Three hours credit. Second semester. Attention is given to colonial agriculture, industry, and trade as an introduction to the course. After 1789, the main lines of study are the banking, transportation, and tariff history of the United States, with special attention to the development of the natural resources, the rise of manufacturers and the expansion of corporate methods in industry and trade. Required of all majors. Boynton.

4.—Industrial and Commercial Geography. Three hours. Both semesters. A study of the staple commodities of commerce, their production as conditioned by the natural resources and industrial development of different regions, their exchange between those regions, characteristic conditions accompanying large production or consumption of each commodity examined, together with some account of the economic organization of each industry studied. Newman.

5.—European Industry and Commerce During the Nineteenth Century I. Two hours credit. First semester. Agrarian, industrial and commercial development of Europe in the nineteenth century. The agrarian movement and depression; the industrial revolution; the development of commerce and shipping; a brief consideration of shipping subsidies, industrial combinations and state policies regarding them, and tariff policies of the chief European countries. Newman.

6.—European Industry and Commerce During the Nineteenth Century II. Two hours credit. Second semester. A continuation of course 5, which must have been completed. Newman.

8.—Marketing. Three hours. Both semesters. Summarized history of marketing organization; principal types of present-day markets and marketing agencies; the functions of the middleman in the distribution of the products of farm and factory; the organization of domestic and foreign trade; organized speculation in farm products; various proposals for improving marketing methods. Ise.

10.—The Economics of the War. Three hours credit. Second semester. Intended to treat in particular the economic problems involved in and growing out of the war. Attention will be directed to the wartime regulation of trade and industry, the control of supplies and of transportation, and in particular to the subject of war finance. The course will conclude with a study of the problems incident to demobilization and of the various programs of reconstruction. Boynton.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—MONEY. Three hours credit. First semester. The evolution of coinage of monetary systems; the production, distribution and functions of the precious metals; value theories of money, issues of paper money by governments and by banks; credit and its relation to money; domestic and foreign exchange; prices and their fluctuations constitute the main features of the course. The historical background, where possible, is emphasized. Required of all majors. Prerequisite for nonmajors, course 1. Boynton.

51.—BANKING. Three hours credit. Second semester. The principles of banking are studied, special attention being given to the relation of banking to credit operations. A comparative study is made of the banking systems of the United States, Great Britain, France, Germany, and Canada, including their historical development. Special consideration is given to the Federal Reserve System of the United States. Prerequisite, course 50. Required of all majors. Boynton.

52.—BANKING PRACTICE. Two hours credit. First semester. A study of the organization and operation of commercial banks, savings banks, trust companies, and investment banking, including the function of commercial paper houses and note brokers. The nature of banking and mercantile credit is analyzed as well as the broader relation of banking to the money market. Prerequisite, course 51. Boynton.

53.—INVESTMENTS. Two hours credit. Second semester. A study of the various fields of investments, including railway, mining, and industrial securities, and the bonds of governments and municipalities, with special attention to the merits of particular stocks, bonds, mortgages, etc. The work of investment banking houses will likewise be considered. The aim of the course is to determine, so far as possible, the elements of a wise and conservative investment. Prerequisite, course 50. Boynton.

54.—BUSINESS ORGANIZATION AND MANAGEMENT. Three hours credit. Second semester. General business organization and management, as well as the organization of the business of the bank, the factory, and the general office. The organization and working of the industrial and commercial corporation are given special consideration. Newman.

55.—HISTORY AND ORGANIZATION OF TRANSPORTATION. Two hours credit. First semester. Canal construction and the development of the railway net of the United States; railroad finance and organization; problems of railway maintenance and methods of conducting transportation; accounts and reports illustrating railway operations; a comparative study of railway practices in other countries. Should be preceded by course 3. Boynton.

56.—RAILWAY RATES AND REGULATION. Two hours credit. Second semester. A study of the theory of railway rates, and of ratemaking in practice; problems of local and personal discrimination; adjustments due to geographical location and market competition; railway agreements; state railway commissions and the Interstate Commerce Commission; recent legislation, state and national, relating to railway transportation. Prerequisite, course 55. Boynton.

57.—BUSINESS FINANCE. Three hours. Second semester. A study of the different types of securities by which capital is provided for business corporations; the promotion, capitalization, financing, consolidation and reorganization of such corporations, from the viewpoint of the management or financial adviser of the corporation. Newman.

59.—PUBLIC UTILITIES. Two hours credit. Second semester. The topics studied are: problems of water, lighting, heating, and telephone service; street and interurban railway transportation; public ownership versus regulated private ownership; the determination of reasonable rates and adequate service; public utility reports and accounts. Prerequisite, courses 56 and 57. Newman.

60.—INSURANCE. Three hours credit. Second semester. A study of (*a*) the general economic nature of risk and the theory of insurance; (*b*) the organized business of fire and life insurance, including details with respect to policy contracts, fire insurance rating, the calculation of insurance premiums, reserves, investment of funds, etc.; and (*c*) the relation of the state to insurance. Jensen.

61.—PUBLIC FINANCE I. Three hours credit. First semester. A general introduction to the science of public finance: public expenditures, fiscal administration, public revenues and public credit; shifting and incidence of taxation. Required of all majors. Jensen.

62.—PUBLIC FINANCE II. Three hours credit. Second semester. Analysis and description of current taxation systems, national, state, and local. Discussion of the general property, land-value, income, inheritance, and other forms of taxes. Taxation problems, programs, and reforms. Prerequisite, course 61. Required of all majors. Jensen.

64.—ACCOUNTING I. Three hours credit. First semester. Theory and practice of modern accounting, applicable to the single proprietorship and partnership form of business. Henderson.

65.—ACCOUNTING II. Three hours credit. Second semester. Prerequisite, course 64. Review and further development of Accounting I. Special problems in connection with partnerships, interest, and depreciation. Corporation accounts, stock issues, dividends, sinking funds, and reserves. Henderson.

66.—COST ACCOUNTING. Two hours credit. First semester. Prerequisite, courses 64 and 65. The elements of cost. Cost records an integral part of the general accounting system. The control of material. Different wage systems. The allocation of expenditures to various units of production in different lines of industry.

67.—ADVANCED ACCOUNTING AND AUDITING. Two hours credit. Second semester. Prerequisite, courses 64 and 65. C. P. A. problems. Duties and responsibilities of the auditor. General procedure and method. Balance sheet audit, detailed audit, verification of assets and liabilities.

68.—STATISTICS. Three hours credit. Second semester. The characteristic method of investigation in the social sciences. The principles governing the collection, preparation, and interpretation of statistical data, including tabulation and graphic presentation. Jensen.

69.—BUSINESS LAW. Three hours credit. Second semester. The elementary principles of law relating to business transactions. The essentials of contracts, agency, bailments, sales, negotiable instruments, corporations and real property. Emphasis is laid upon the legal problems which arise in everyday business. Henderson.

70.—LABOR PROBLEMS. Three hours credit. First semester. The nature, genesis and development of modern labor problems; the history, growth, policies and practices of trade unions, with special reference to the United States, and policies of employment management, as developed by employers. Jensen.

71.—LABOR LEGISLATION. Two hours credit. Second semester. A continuation of course 70. Among the topics studied are: compulsory arbitration, hours of labor, the minimum wage, workmen's compensation acts, safety legislation, health insurance, old-age pensions, unemployment and its remedies, and the labor of women and children. Prerequisite, course 70 or its equivalent. Jensen.

72.—LABOR MANAGEMENT. Two hours credit. The business manager's problem of obtaining, retaining and training his labor supply. Prerequisite, course 70. Jensen.

73.—MODERN ECONOMIC REFORM. Three hours credit. Second semester. This course will treat of modern movements for economic reform,

including the single tax, agrarian reform, coöperation, profit-sharing, syndicalism, socialism, and communism, with a critical discussion of present and proposed methods of distribution and economic organization. Ise.

74.—Immigration Problems. Two hours credit. Second semester. The course is concerned with the history of immigration to the United States, its causes, character, geographical distribution, economic effects of immigration, pauperism, and the problem of assimilation. The special problems of oriental immigration and the question of immigration policy will also be studied.

80.—Economics of Agriculture. Three hours credit. Second semester. The principal topics studied are: private property in land; the public-land policy of the United States and its economic consequences; organization of the productive factors; size of farms, land values, and tenancy; rural credit; marketing; coöperative organization among farmers. Special attention is given to conditions in Kansas. Ise.

85.—Economics of Retailing. Two hours credit. Second semester. Prerequisite, courses 4 and 8. Ise.

88.—Foreign Trade and Exchange. Three hours credit. Second semester. The foreign trade of the United States and of the principal commercial countries; trade balances; international indebtedness. Foreign exchange and its fluctuations; credit instruments used in the settlements of international obligations; world money markets, their organization and operations. Special attention is given to the effects of the recent war on world trade and on the international exchanges. Prerequisite, courses 50 and 51. Boynton.

90.—Elements of Economics. Five hours credit. Second semester. The same as course 1, except that it is designed especially to meet the needs of Juniors and Seniors. Ise.

91.—History of Economic Thought. Two hours credit. First semester. The history of economic doctrines in ancient, mediæval and modern times. A study of the doctrines of the Greeks, Romans, schoolmen and canonists, mercantilists, physiocrats, and of the later classical, mathematical, Austrian, and historical schools. Fletcher.

92.—Advanced Principles of Economics. Three hours credit. Both semesters. Designed to give mature students of economics a firm grasp of the more important economic principles. The theories of value and prices and of distribution are studied in the light of current schools of thought. Required of all majors. Ise.

FOR GRADUATES.

100.—Seminar. Two to ten hours credit. Either semester, by appointment. This is a research course for mature students. Applicants for admission to the seminar must satisfy the instructors of their preparation and ability to undertake original investigation. Each student must pursue a definite line of work under the personal direction of one of the instructors.

150.—Money. Three hours credit. First semester. Boynton.

151.—Banking. Three hours credit. Second semester. Boynton.

152.—Banking Practice. Two hours credit. First semester. Boynton.

153.—Investments. Two hours credit. Second semester. Boynton.

154.—Business Organization and Management. Three hours credit. Second semester. Newman.

155.—History and Organization of Transportation. Two hours credit. First semester. Boynton.

156.—Railway Rates and Regulation. Two hours credit. Second semester. Boynton.

157.—Business Finance. Three hours credit. Second semester. Newman.

159.—Public Utilities. Two hours credit. Second semester. Newman.

160.—Insurance. Three hours credit. Second semester. Jensen.

161.—Public Finance I. Three hours credit. First semester. Jensen.

162.—Public Finance II. Three hours credit. Second semester. Jensen.

164.—Accounting I. Three hours credit. First semester. Henderson.

165.—Accounting II. Three hours credit. Second semester. Henderson.

166.—Cost Accounting. Two hours credit. First semester.

167.—Advanced Accounting and Auditing. Two hours credit. Second semester.

168.—Statistics. Three hours credit. Second semester. Jensen.

169.—Business Law. Three hours credit. Second semester. Henderson.

170.—Labor Problems. Three hours credit. First semester. Jensen.

171.—Labor Legislation. Two hours credit. Second semester. Jensen.

172.—Labor Management. Two hours credit. Second semester. Jensen.

173.—Modern Economic Reform. Three hours credit. Second semester. Ise.

174.—Immigration Problems. Two hours credit. Second semester.

180.—Economics of Agriculture. Three hours credit. Second semester. Ise.

185.—Economics of Retailing. Two hours credit. Second semester. Ise.

188.—Foreign Trade and Exchange. Three hours credit. Second semester. Boynton.

190.—Elements of Economics. Five hours credit. Second semester. (Not open to students who major in economics.) Ise.

191.—History of Economic Thought. Two hours credit. First semester. Fletcher.

192.—Advanced Principles of Economics. Three hours credit. Second semester. Ise.

Department of Education.

Professors: Kent, Engel, Johnson, Mitchell, Neuen Schwander, Olin, O'Brien, Sprague, Schwegler, H. P. Smith, W. R. Smith, Walker.
Associate Professors: Carter, Eikenberry, Frazier, Nutt, Oliver, Stratton.
Assistant Professors: Gardner, Macdonald, Melvin, Smart, Watson.
Instructors: Alice Cline, Ruby Cline.

COURSES FOR SOPHOMORES.

To meet the demands of the School of Fine Arts, in which certain teacher's certificate requirements are fulfilled in two years of work above high school, and to enable sophomore students in the College, who find it necessary to leave college and begin teaching, to meet the requirements of the State Board of Education for a three-year certificate, courses 1 and 2 are offered by the School of Education. The certificate thus secured is valid only in elementary schools, junior high schools, and two-year high schools, except that those completing the special two-year course in some special subject receive a certificate valid for teaching that subject in any of the high schools of the state. These courses will not be counted for credits toward the University teachers' diploma unless the student has taught at least one year on the certificate which the courses were used to secure.

1.—Methods of Teaching. Three hours credit. Second semester. Those fundamental principles of method that are most helpful to teachers in the organization and presentation of subject matter. The illustrative materials are taken from a wide range of subjects, but the emphasis is upon the problems that pertain particularly to the elementary schools. Nutt.

2.—Elementary Education. Three hours credit. Second semester. To give the prospective teacher in elementary schools a general appreciation of the aim, scope, and setting of elementary education and the more necessary information on the internal organization of the elementary school. Olin.

COURSES FOR JUNIORS.

Note.—Courses 75 and 76 are required of all juniors entering the School of Education with the view of taking the B. S. degree in Education or the University teachers' diploma, and are strongly recommended to all who want the life certificate. The courses satisfy the requirements in educational psychology and educational administration set by the State Board of Education for the state certificate. Juniors are urged to start this work in the fall so that the two courses may be taken in sequence and that both may be finished before some of the specialized courses are taken.

75.—Fundamentals of Education, Part I. Four hours credit. Both semesters. The considerations which determine aims and methods of education as found in educational psychology, educational sociology, and the theory of group measurements.

76.—Fundamentals of Education, Part II. Four hours credit. Both semesters. The more significant aspects of the psychology of adolescence, the historical foundations of the American high school and the most important problems in school administration, especially those of the high school. Fee, $1.50.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

I.—Historical.

50.—History of Ancient and Mediæval Education. Three hours credit. First semester. A study of educational principles and practice, systems, and educational theorists among ancient and mediæval peoples, including important features of Oriental, Greek, Roman, early Christian

and Saracenic education, on the revival of learning under Charlemagne, the rise of universities, and early phases of the Rennaissance movement. Olin.

51.—History of Modern Education. Two hours credit. Second semester. Based on the educational reforms and reformers of the seventeenth century and later. The decline of humanism, the growth of realism. The education evolution of the nineteenth century under such leaders as Rousseau, Pestalozzi, Herbart, Arnold, and Barnard. Olin.

63.—Education in America. Three hours credit. Second semester. The origin and development of educational ideas, institutions, and systems in the colonial period; the evolution of the academy, high school, and professional school; the education of girls and women; manual and vocational instruction; and the work of leading educators and theorists: Mann, Willard, Lyon, Howe, Gallaudet, Barnard, Elliot, Harris. Olin.

102.—Seminar. Educational systems of Herbart and Froebel. Two hours credit. First semester. Olin.

103.—Seminar. Origin and early development of universities. Two hours credit. Second semester. Olin.

II.—Theoretical.

64.—Educational Psychology. Three hours credit. Second semester. The application of psychological principles, data and methods to typical phases of school learning. Particular emphasis is placed on means of training students in economical methods of study. Readings, discussions, and exercises. Carter.

67.—Supervised Study. Two hours credit. Both semesters. A very practical specialized course dealing with details of technic in directing and supervising study. Readings, discussion, and some actual practice in analyzing study faults. Carter.

65.—Advanced Methods of High-school Teaching. Three hours credit. Second semester. A good course of study for any school subject includes requirements of methods of study for different years and for different materials. The members of this class will serve as a committee of teachers in working out such details for some of the more common subjects in the course of study of a typical city school. Carter.

69.—Technic of Teaching. Two hours credit. First semester. A careful study of the fundamental principles of classroom instruction. The Training School will offer abundant opportunities for demonstrative and illustrative material. The course is designed to supplement the work of teachers' courses and to correlate as much as possible with practice teaching. Nutt.

53.—Educational Sociology. Two hours credit. First semester. This course uses sociology as a coördinate of psychology in developing the principles of education. Social education applies the social principles and data derived from a study of group relationships to school practices just as educational psychology applies the psychological principles and data derived from a study of individual minds. W. R. Smith.

92.—Sociological Foundations of the Curriculum. Three hours credit. Second semester. An analysis of the social uses of the materials of each study in the curriculum as a basis for determining what should be taught and the methods by which the materials included may be made to serve social purposes. W. R. Smith.

82.—Vocational Guidance. Two hours credit. First semester. A study of vocational aptitudes and requirements. The literature of vocational guidance will be analyzed and methods of determining vocational choice set forth. Programs will be worked out for school use by teachers in advising boys and girls along vocational lines. Johnson.

78.—Adolescence. Two hours credit. Both semesters. The physical, social, and psychological aspects of adolescence. The course will lay

special stress on the problems of physical and mental hygiene, as they appear in the physical, intellectual, social, and religious development of the adolescent. Schwegler.

55.—Mental Measurement of School Children. Three hours credit. First semester. The theory and practice of mental measurement. The course deals especially with the problems of mental deficiency, exceptional endowment, and vocational guidance. Schwegler.

71.—The Nontypical Child. Three hours credit. First semester. The growth and development of children are studied with special reference to the nature and causes of arrests as found in backward, defective, and degenerate children. Intended for mature students who are preparing themselves for executive positions in town and city schools and for students preparing for supervisory work. Lectures and visits to various institutions maintained by the state for defective and delinquent children. Schwegler.

54.—Educational Clinic. Three hours credit. Second semester. By the kindly coöperation of neighboring schoolmen it has been possible to provide for mature students an opportunity for the direct study of typical cases of exceptional mental development. Tests for various mental functions will be demonstrated, and the Binet-Simon, Yerkes-Bridges, and other tests will be used to determine psychic normality. Schwegler.

68.—The Principles of Education. Three hours credit. First semester. An analysis of educational norms in theory and practice in the light of the facts of biology, psychology, and sociology. Lectures, library studies, written reports. ———.

79.—Moral Education. Two hours credit. Second semester. A critical study of the underlying psychological forces, both conscious and unconscious, which govern the development of habits of thought and action, followed by a review of prevailing systems of moral education. Schwegler.

COURSES FOR GRADUATES.

100.—Seminar in Educational Psychology. Two hours credit. Both semesters. Carter.

101.—Seminar in Mental Defects. Two hours credit. Both semesters. Schwegler.

106.—Seminar in Educational Sociology. Two hours credit. Both semesters. Smith.

III —Administration.

52.—Educational Measurement and Experimentation. Two hours credit. Second semester. A practical course in the use of standardized educational tests and scales, analysis and interpretation of results obtained, and experimentation relating to the improvement of instruction. Attention is given also to original investigations and research projects. Open to students who have had course 66, Fundamentals of Education, or equivalent preparation. O'Brien.

56.—Vocational Education. Two hours credit. First semester. The development of vocational education in Europe and America; its organization and administration; the relation of the school system to the various industries of the community; the relation of industrial education to vocational guidance; the consideration of the various theories for the adjustment of educational means to vocational aptitudes. Johnson.

57.—School Hygiene. Three hours credit. Second semester. (1) Schoolroom sanitation; (2) Personal hygiene of school children; (3) Mental hygiene of school children. Nutt.

61.—High-school Administration. Three hours credit. Second semester. The practical problems in the administration of the high school.

Each member of the class will be expected to make a rather detailed study of some high-school problem in which he is especially interested. Johnson.

s 62.—Junior High School. Two hours credit. First semester. The place of this unit of organization in the American public-school system; the course of study; the teaching staff; goals of effort and achievement; and general problems connected with the organization and administration of the intermediate school. ———.

66.—Statistical Methods and Measurements. Three hours credit. First semester. To provide students with scientific method and attitude for the investigation of educational problems requiring statistical treatment or refined measurements. Does not involve technical mathematics, is intended for both teachers and administrators, and deals with such problems as pupil grading, subject testing, ability classifications, and promotions. Is prerequisite for most scientific investigation or research in education. O'Brien.

70.—School Surveys. Two hours credit. Second semester. A study of kinds, purposes, methods and results of school surveys. This includes a study of selected parts of standard surveys and a consideration of types of practical survey work possible by regular administrators in ordinary school systems. Open only to experienced public-school administrators. (Not given in 1921-'22.) ———.

72.—Supervision of Instruction. Two hours credit. First semester. Principles and standards of supervision with concrete application to actual work. Particular attention is given to standard methods of measuring teaching and the teaching product. Open only to those having had teaching experience. H. P. Smith.

73.—City School Administration. Two hours credit. Second semester. An intensive study of some of the more common and important problems met with in administering a city school system. H. P. Smith.

74.—Educational Organization and Administration. Three hours credit. Second semester. Relation of the national government to education in the states and insular possessions; state administrative organizations; local units of control; school costs and support; material equipment; recent legislation; classification and promotion of pupils. ———.

77.—Practical Problems of Public-school Education. Credit to be arranged. Both semesters. The work offered in this course is planned with special reference to the needs of actual teachers and administrators living in the vicinity of Lawrence.

COURSES FOR GRADUATES.

104.—Seminar in Educational Administration. Two hours credit. Both semesters. O'Brien, Johnson, H. P. Smith.

IV.—Special Methods and Senior Teaching.

81.—Teachers' Course in Biological Sciences and General Sciences. Three hours credit. Both semesters. Eikenberry.

81*a*.—Senior Teaching in Biological Sciences. Both semesters. Eikenberry.

99.—Teachers' Course in Chemistry. Two hours credit. Second semester. Stratton.

99*a*.—Senior Teaching in Chemistry. Both semesters. Stratton.

95.—Teachers' Course in Drawing and Design. Three hours credit. Frazier.

95*a*.—Senior Teaching in Drawing and Design. Second semester. Frazier.

86.—Teachers' Course in English. Three hours credit. First semester. Macdonald.

86*a*.—Senior Teaching in English. Both semesters. Macdonald.

88.—Teachers' Course in French. Three hours credit. First semester. Neuen Schwander.

88*a*.—Senior Teaching in French. Both semesters. Neuen Schwander.

85.—Teachers' Course in German. Three hours credit. Second semester. Engel.

85*a*.—Senior Teaching in German. Both semesters. Engel.

91.—Teachers' Course in History. Three hours credit. First semester. Melvin.

91*a*.—Senior Teaching in History. Both semesters. Melvin.

83.—Teachers' Course in Home Economics. Three hours credit. First semester. ———.

Engineering.

ARCHITECTURE.

Professors: Goldsmith, Brown.
Associate Professor: Bailey (Laf.).
Assistant Professor: Wiedemann.

1.—Elements of Architecture I. Two hours credit. First semester. Elements of architectural drawing and composition; preparation for the free use of sketching in architectural design. Wiedeman.

2.—Elements of Architecture II. Two hours credit. Second semester. Continuation of course I. Methods of indication, rendering and presentation. Wiedeman.

3.—Architectural Design I. Three hours credit. First semester. Elementary architectural forms and fundamental construction features, their employment in architectural composition, the classic orders. Drafting-room work and informal lectures. Bailey.

4.—Architectural Design II. Three hours credit. Second semester. Continuation of course 3, application of the orders in elementary design. Study and analysis of architectural composition based on the orders, to train the student in the æsthetics of architecture and the fundamentals of design. Drafting-room work and informal lectures. Bailey.

5.—History of Architecture I. Two hours credit. First semester. An analytical study of architectural development of the historic styles, explaining the underlying principles of construction and design, influence of materials, and effects of religious and political conditons. The architecture of Egypt, Assyria, Persia, Greece, and Rome. Illustrated lectures, reading and sketching. Goldsmith.

6.—History of Architecture II. Two hours credit. Second semester. Continuation of course 5, from the close of Roman supremacy through the periods of Byzantine, Romanesque and Gothic development. Illustrated lectures, reading sketching and research. Goldsmith.

9.—Shades and Shadows. One hour credit. First semester. Application of the principles of descriptive geometry in casting conventional shadows. Wiedeman.

10.—Perspective. One hour credit. Second semester. Mechanical methods of architectural perspective. Conventional rendering of architectural subjects. Wiedeman.

12.—Theory of Architecture. Two hours credit. Second semester. A study of the elements of architecture and theories and principles of architectural composition. Lectures, reading and drawing. Goldsmith.

14.—Domestic Architecture. Two hours credit, for architecture only. Second semester. An analytical study of the requirements of domestic architecture; preliminary studies of various types of house plans. Lectures, reading and drawing. Goldsmith.

51.—Architectural Design III. Five hours credit in architecture; four hours credit in architectural engineering. First semester. Problems in theoretical and constructive design. Beaux-Arts Institute Class B Projet. Architecture credit also requires Beaux-Arts Esquisses-esquisses. Bailey.

52.—Architectural Design IV. Five hours credit in architecture; four hours credit in architectural engineering. Second semester. Continuation of course 50. Bailey.

53.—Architectural Design V. Five hours credit, for architecture only. First semester. Continuation of course 51, and leading to Beaux-Arts Institute Class A Projet. Students capable of beginning Class A Projet may enroll for seven hours credit. Bailey.

54.—Architectural Design VI. Five hours credit, for architecture only. Second semester. Continuation of course 52. Students taking Beaux-Arts Class A Projet, combine with this course the time allowed for thesis, securing credit in both courses. Bailey.

56.—Thesis. Three hours credit. Second semester. An extended problem in design requiring complete plans, elevations, section and construction details, with outline specifications of building materials and methods. The subject may be chosen by the student with the approval of the professor of architecture. Students in architecture having earned sufficient credits in Beaux-Arts Institute design problems may take Beaux-Arts Class A Projet for course 54 and course 56 combined, securing credit in both courses. Goldsmith, Bailey.

57.—History of Architecture III. Two hours credit. First semester. Continuation of course 6. The Renaissance. Illustrated lectures, reading, sketching and research. Goldsmith.

58.—History of Architecture IV. Two hours credit. Second semester. Continuation of course 57. Classic and Gothic revivals; modern architecture in Europe and the United States. Illustrated lectures, reading, sketching and research. Goldsmith.

59.—Building Construction I. Three hours credit. First semester. The principles of wooden construction and their application in structural design, working drawings, and details. Building and finishing woods, framing of wooden buildings, details of exterior finish, interior woodwork, and cabinet work. Lectures, reading and drafting-room work. Goldsmith.

60.—Building Construction II. Three hours credit. Second semester. The principles of masonry construction and their application. Building stones, brickwork, terra cotta, simple cast-iron and steel work, fireproofing and plastering. Lectures, reading and drafting-room work. Goldsmith.

62.—Building Sanitation. One hour credit. Second semester. Plumbing, sewerage, water-supply and plumbing fixtures. Lectures, reading and drafting-room work. Given in alternation with Electrical Engineering for Architects (E. E. 64), for juniors and seniors. Goldsmith.

67.—Office Practice and Specifications. Three hours credit. First semester. A course dealing with the essentials of office practice and of specification writing. Goldsmith.

CIVIL ENGINEERING.

Professors: Williams, Rice (H. A.), McNown.
Associate Professors: Jewell, Brown (F. L.).
Assistant Professors: Jones (J. O.), Strachan.
Assistant: P. S. Fox.

1.—Elementary Surveying. Three hours credit. First semester, one hour of class work; two hours of field work, computation and plotting, M. and W., from 1 to 4. Use and care of engineer's chain, transit and level. Adjustments of transit and level. Land surveying methods and computations. Prerequisite, Mathematics 3. McNown, Strachan.

2.—Higher Surveying. Three hours credit. Second semester. United States system of land subdivision, resurveys. Topographic and hydrographic surveying. Control of surveys. Prerequisite, Civil Engineering 1. McNown, Strachan.

3.—Summer Field Work. Ten hours a day for four weeks at the close of the college year is required of sophomore civil-engineering students, and the same for two weeks is required of sophomore mining-engineering students. A topographical survey of an area is made from a camp. Practice in taking topography by transit and stadia, and by plane table, measurements of a basis line, triangulation, leveling, and determination of azimuth latitude and time, constitute the work. Prerequisite, Civil Engineering 2. McNown, Strachan.

4.—Railway Surveying. Two hours credit. Second semester. A study of railway curves and earthwork, with field exercises. Prerequisite, Civil Engineering 1. Williams, Strachan.

5.—Roads and Pavements. Two hours credit. Second semester. A study of methods used in the construction and improvement of country roads and city streets, and of paving materials and of the principles governing the selection of a pavement. Prerequisite, Civil Engineering 1, 2 and 3. McNown.

50.—Elementary Surveying. Three hours credit. Both semesters. Two hours of class work, and three hours of field. A brief course based on courses 1 and 2. McNown, Strachan.

52.—City Planning. Two hours credit. First semester. A study of city planning from the modern viewpoint, under such topics as city planning abroad, the American city, design of streets and street systems, parks and playgrounds, civic centers, water features, methods of acquiring land, and legislation. Lectures and assigned readings. McNown.

53.—Geodesy. Three hours credit. First semester. Two hours in classroom and one in field, and computation. By appointment. A brief study of the construction, use and adjustment of the higher instruments of precision, and their use in the determination of the size and figure of the earth, including a study of the application of the method of least squares to the adjustment of observations. Prerequisite, Civil Engineering 3. McNown.

54.—Roads and Pavements Laboratory. One hour credit. Both semesters. A study of the standard methods used in testing rock, brick, concrete, bituminous and other materials used in road construction. McNown.

55.—Railway Surveying. Four hours credit. First semester. A study of methods of laying out and constructing railways, with field practice consisting of a location survey of a line of sufficient length to familiarize the student with standard methods of doing such work; calculation of waterways; bridge surveys; yards, turnouts, and easement curves. Prerequisites, Civil Engineering 1, 2, 3 and 4. Williams, Strachan.

57.—Advanced Railway Engineering. Two hours credit. Second semester. The principles involved in the economic location and construc-

tion of railways. Analysis of traffic and operating expenses. The influence of proposed changes in location upon the amount of total revenue, the fixed charges, the operating expense, and the dividend-paying capacity of the road. Prerequisite, Civil Engineering 55. Williams.

58.—Railway Terminals and Signaling. Two hours credit. First semester. A general study of terminal problems, the design of yard layouts and of terminal structures. Some time given to signal engineering. Prerequisite, Civil Engineering 55. Williams.

59.—Railway Construction and Maintenance. Three hours credit. Second semester. An advanced course in railway engineering, covering tunneling, economic handling of materials, railway structures, trestles, timber preservation, as well as the theory and practice of railway maintenance. Prerequisite, Civil Engineering 55, and Mechanics 51. Williams.

61.—Stresses in Framed Structures. Five hours credit. First semester. Analytical and graphical calculation of stresses in framed structures under various forms of loading. Prerequisite, mechanics 51 and 53. H. A. Rice.

62.—Bridge Design. Four hours credit. Second semester. A study in bridge details and the dimensions of parts. Students work out designs for a plate girder and a simple truss. Prerequisite, Civil Engineering 61. H. A. Rice.

62A.—Structural Design. Three hours credit. Second semester. A study of structural details and proportioning parts. The student makes a detailed design and the plans for typical steel structures. Prerequisite, Civil Engineering 61. H. A. Rice.

64.—Masonry. Three hours credit. Second semester. Stone and brick masonry; the science of proportioning concrete; foundations, including pile driving, cofferdams, pneumatic caissons, etc.; dams, retaining walls, piers and abutments, masonry bridges. Prerequisite, Mechanics 50 and 51. Williams.

65.—Reinforced Concrete. Three hours credit. First semester. A course in the theory and practice of the design of beams, floor slabs, columns, conduits, retaining walls, arches, and other forms of reinforced concrete construction. Mathematical theory, study of plans, and design of typical structures. Prerequisite, Mechanics 51. H. A. Rice.

66.—Reinforced Concrete Design. One hour credit. Second semester. This course supplements course 65. Designs of beam and slab bridges, together with a complete analysis of a reinforced concrete arch, are made. Prerequisite, Civil Engineering 65. H. A. Rice.

67.—Higher Structures. Three hours credit. Second semester. An advanced course in bridges, including swing bridges, cantilever bridges, suspension bridges, and arches. Some work will be given in calculations of deflections and statically indeterminate and secondary stresses. Prerequisite, Civil Engineering 61. H. A. Rice.

70.—Water Supplies. Three hours credit. First semester. The collection and distribution of water supplies. Requisites of supply as to quality and quantity. Design of distribution, collection and storage works. Prerequisite, Mechanics 55. Jewell.

71.—Sewerage. Two hours credit. Second semester. The collection, removal and disposal of city sewage. Principles of the design and construction of sewers and storm drains. Prerequisite, Mechanics 55. Jewell.

72.—Advanced Sanitary Engineering. Four hours credit. Second semester. A more detailed study of the subjects treated in courses 70 and 71. The purification of public water supplies and the treatment of sewage. Jewell.

73.—Sanitary Engineering Design. Five hours credit. Second semester. The student works out, by practical problems, the principles learned in courses 70, 71 and 72. Jewell.

74.—Municipal Sanitation. Two hours credit. First semester. A broad general view of sanitary science and its application to municipal problems, such as water supply, sewerage and drainage, street cleaning, waste and garbage collection and disposal. Jewell.

76.—Irrigation and Drainage Engineering. Two hours credit. Second semester. Impounding, diversion, conveyance, measurement, and duty of water; irrigation structures; flood control; drainage factor; design of drainage system; assessment of benefits; irrigation and drainage law. Prerequisite, Mechanics 55. Williams.

80.—Seminar. One-half hour credit. First semester. Preparation and presentation of technical papers. Williams.

85.—Advanced Highway Engineering. Three hours credit. Second semester. Economic and physical factors affecting the design of highway location and construction. Prerequisites, Civil Engineering 5, 54 and 55. McNown.

86.—Highway Plans and Specifications. Two hours credit. Second semester. Highway plans, specifications and estimates. Prerequisites, Civil Engineering 5, 54 and 55. McNown.

87.—Highway Laboratory II. One hour credit. Second semester. Investigation of special problems in paving materials and paving surfaces. Prerequisite, Civil Engineering 54. McNown.

90.—Thesis. Three hours credit, either semester, senior year. An intensive study of some subject, the design of an engineering structure of some magnitude, or an experimental investigation with a formal dissertation thereon. Williams, H. A. Rice, McNown.

COURSES FOR GRADUATES.

100.—Structural Designing. Five hours credit. First or second semester. An advanced course covering cantilever, swing and suspension bridges, skeleton frames for buildings, train-shed roofs, standpipes, and elevated tanks. This course is designed to follow course 162. Lectures, recitations, and detail designing in the drawing room. For graduates only. Rice.

101.—Research Course. A course of investigation of some matter directly related to civil engineering. This course should run through the year, making ten hours' credit. For graduates only. Arrangements for the course should be made with Professor Williams.

102.—Railway Terminal Structures. Five hours credit. Second semester. An extended study of the design of retaining walls, water tanks, coal bunkers and coaling stations, ore bins, grain bins and elevators, turntables, transfer tables, train sheds, ash pits, chimneys, and other accessory structures. For graduates only. Williams.

103.—Pavements. Three hours credit. Second semester. Lectures and laboratory. A study of road-building rocks, bituminous materials, brick and brick clays, wood blocks, fillers, and the economical selection of type of pavement. For graduates only. McNown.

104.—Foundations. Three hours credit. Second semester. A study in the design and construction of ordinary and subaqueous foundations. For graduates only. Williams.

159.—Maintenance of Way. Three hours credit. Second semester. Williams.

162.—Bridge Designing. Four hours credit. Second semester. Rice.

165.—Reinforced Concrete. Three hours or five hours credit. First or second semester. Rice.

172.—Sanitary Engineering. Five hours credit. Second semester. Public sanitation, particularly with reference to the water-borne infectious diseases. Influence of good sewerage, drainage and water supply upon the health of communities. Visits to sanitary engineering works. State control of public water supplies and population of streams. Prerequisites, courses in water supply and sewerage. Lectures, recitations, and reading. For graduates only. Jewell.

ELECTRICAL ENGINEERING.

Professor: Shaad, Johnson (F. E.).
Assistant Professor: Neumann.
Assistant Instructor: Stevenson.

Courses 50 to 52, and 54 to 58, inclusive, and 61 and 62 are required of all electrical-engineering students. Courses 50, 53, 54, and 55 are required of mechanical-engineering students. Courses 59 and 63 are optional for electrical-engineering students.

50.—Dynamo Machinery. Three hours credit. Sophomore, second semester. Theory of direct-current generators and motors. Prerequisites, Physics 1E and 2E. F. E. Johnson.

51.—Theory of Alternating Currents. Four hours credit. Juniors, first semester. A mathematical treatment of alternating-current phenomena and the theory of alternating-current machinery, fundamental types. Prerequisite, course 50. Shaad.

52.—Advanced Dynamo Machinery. Four hours credit. Junior, second semester. Advanced theory of alternating-current machinery. Shaad.

53.—Theory of Alternating Currents. Three hours credit. Second semester. A study of the theory of alternating currents and alternating-current machinery, together with a discussion of motor application. Prerequisite, course 50. F. E. Johnson.

54.—Electrical Laboratory. One and one-half hours credit. Sophomore, second semester. An experimental course for the purpose of illustrating the principles of direct-current dynamo machinery and acquainting the student with the types and performance of direct-current apparatus. Must be preceded or accompanied by course 50. Neumann, Stevenson.

55.—Electrical Laboratory. One and one-half hours credit. Junior, second semester. A continuation of course 54. Must be preceded or accompanied by course 51. More advanced work with direct-current machinery is given and experiments with alternating-current apparatus are introduced. Some time is devoted to the calibration of electrical instruments. Neumann, Stevenson.

56.—Electrical Laboratory. One and one-half hours credit. Senior, first semester. Advanced experiments with electrical machinery and the testing of machines, chiefly of alternating-current types. Must be accompanied by course 52. Neumann, Stevenson.

57.—Illuminating Engineering. Three hours credit. Senior, first semester. A course in illumination and photometry, in which the available light sources are studied and the methods of application to artificial illumination of streets and buildings are discussed. Laboratory and field work in the measurement of light sources and illumination. F. E. Johnson.

58.—Electric Power Transmission and Electric Railways. Four hours credit. Senior, first semester. A series of lectures and recitations devoted to the study of the principles involved and the methods used in

the design of transmission and distributing systems and the theory and practice of the design, construction, and operation of electric-railway systems. Prerequisite, course 52. Shaad.

59.—Elementary Telephony. Five hours credit. Second semester. Lectures, recitations, and laboratory work. The principles that underlie all telephone apparatus, and practical experiments with the fundamental telephone transmitters, receivers, and central-station arrangements. Optional for juniors or seniors. Shaad.

60.—Elements of Electrical Engineering. Three hours credit. Second semester. A course covering the general field of electrical engineering, and prepared especially for civil-engineering students. Junior or senior year. Shaad.

61.—Professional Thesis. Four hours credit. Senior, both semesters. Shaad, or other instructors, according to the line of work chosen.

62.—Central Stations. Three hours credit. First semester. Three hours in the classroom and one period in the drafting room each week. A study of the design, construction, operation, and management of central electrical stations and substations. Shaad.

63.—Advanced Electrical Laboratory. Five hours credit. Seniors, second semester. A continuation of course 56. More advanced and extended experiments with electrical machinery and circuits, introducing the experimental study of transient, electrical phenomena.
F. E. Johnson.

64.—Electrical Engineering for Architects. Two hours credit. A brief course dealing with illumination, wiring installations and electrical apparatus for building equipment. Second semester of alternate years. Shaad.

COURSES FOR GRADUATES.

100.—Power Transmission and Electric Railways. Four hours credit. Either semester. An advanced course in these subjects, consisting of lectures, assigned readings, and problems, special attention being paid to the engineering features of long-distance power transmission and the electrification of trunk-line railways. Shaad.

157.—Electric Lighting. Three hours credit. First semester.
Johnson.

158.—Electric Power Transmission. Four hours credit. First semester. Shaad.

162.—Central Stations. Three hours credit. First semester.
Shaad.

163.—Advanced Electrical Laboratory. Five hours credit. Second semester. Johnson.

ENGINEERING DRAWING.

Professor: Hood.
Assistant Professor: F. E. Jones.
Instructor: Bunn.
Assistant Instructors: White, Wahlstedt.

1.—Lettering and Free-hand Drawing. Two hours credit. Freshman, both semesters. Engineering lettering in pencil and in ink. Free-hand working sketches and perspective sketches of simple machine parts. Working drawings of simple machine parts. Penciling, tracing, blue-printing. Detailing machine parts from assembly drawings.
Hood, Jones, Bunn, White, Wahlstedt.

2.—Machine Drawing. Two hours credit. Freshman, both semesters. Sketches of machine parts and preparation of working drawings; detailing of machines from sketches, notes, assembly drawings and assembled machines; tracing and blue-printing; notes and lectures on drafting-room methods. Each student prepares complete drawings for some simple machine. Hood, Jones, Bunn, White, Wahlstedt.

3.—Descriptive Geometry. Three hours credit. Freshman, both semesters, M. W. F. Principles of projection. Execution of a large number of original exercises. Hood, Jones, White, Bunn.

4.—Mechanical Drawing. Two hours credit. For students of architectural engineering and architecture only. Freshman, eighteen weeks of first semester. Engineering lettering in pencil and ink; use of instruments; detailing of machine parts from sketches, assembly drawings, and assembled machines; tracing and blue-printing. Wahlstedt.

INDUSTRIAL ENGINEERING.

Professor: Walker.
Instructor: Bunn.

1.—Engineering Lectures. First semester. A course of lectures on engineering and industrial topics given to freshmen. Walker.

50.—Manufacturing Costs. Two hours credit. First semester. Study of cost elements; mathematics of cost calculation. Bunn.

51.—Industrial Engineering II. Three hours credit. First semester. Manufacturing processes; marketing methods; power application; selection of equipment; layout of plant. Walker.

52.—Industrial Administration. Three hours credit. Second semester. Contract principles, and practice in contract writing for engineering work; industrial systems; organization of transportation and manufacturing companies; valuation of properties. Walker.

COURSES FOR GRADUATES.

151.—Industrial Engineering II. Three hours credit. First semester. Walker.

152.—Industrial Administration. Three hours credit. Second semester. Walker.

MACHINE CONSTRUCTION.

Superintendent: Rocklund.
Instructors: Rocklund, Forney, Rutherford, Bailey.
Assistant Instructors and Mechanicians: Leffert, Messenheimer.

The work is designed to suit the needs of engineering students. It consists of practice work following demonstrations and recitations in the classroom. Textbook preparation and note writing are required in the class work. One hour of each regularly assigned weekly period is devoted to classroom work during a portion of the semester. In the advanced courses attention is given to modern methods of welding, heat treatment of high-carbon steels, machine-shop construction, the grouping of machines, and methods followed in standardizing production.

1.—Foundry Practice. One hour credit. Both semesters, three hours per week. Molding, and management of the cupola furnace and brass furnace. Practice in melting and pouring iron and nonferrous alloys. Bailey.

2.—Pattern Making. One hour credit. Both semesters, three hours per week. The principles of pattern making are studied in a practical way by having each student make patterns that are actually used in the foundry. Rocklund.

3.—Forging. One hour credit. Both semesters, three hours per week. Complete course, including stock calculations, bending, drawing, welding, hardening and tempering. Forney.

5.—Bench Work. One hour credit. Both semesters, three hours per week. A machine-shop course in the use and care of tools, practice in filing, chipping, drilling, and riveting. Rutherford.

6.—Machine Tool Work I. One hour credit. Both semesters, three hours per week. Principally lathe work. Includes cutting off stock, centering, straight and taper turning and thread cutting; turning steel, wrought iron, cast iron and brass. Rutherford.

7.—Machine Tool Work II. One hour credit. Both semesters, three hours per week. Use of planer, shaper, milling machine, boring mill, turret lathe; laying out and making machine parts from the drawing; gear cutting. Rutherford.

8.—Advanced Machine-shop Practice. One hour credit. First semester, three hours per week. Tool making. Hardening and tempering; grinding, autogenous welding, jig making; preparing and using high-speed and alloy steels; assembling machinery. Rutherford.

MECHANICAL ENGINEERING.

Professor: Walker.
Associate Professors: Sluss, Dent.
Assistant Professor: Tait.
Assistant: Wilder.

2.—Mechanism. Two hours credit. First semester. A study of the motion of machine parts and of methods of transmission of motion by gears, belts, cams, and links. Recitations and drawing. Dent.

4.—Steam Machinery. Two hours credit. Both semesters. (*a*) Fuels, combustion, and steam generation. (*b*) A study of boiler and engine types. Prerequisite, high-school chemistry or enrollment in chemistry. Sluss, Dent, Tait.

5.—Engines and Boilers. Three hours credit. First semester. A study of the general problem of steam power generation from the standpoint of the installing engineer. Sluss.

6.—Steam Engineering. Four hours credit. First semester. Elements of steam engineering, including combustion of fuels, boiler types, engine types and power-plant auxiliaries. Laboratory practice in proximate analysis of coal, and flue gas analysis. Tait.

8.—Machine Elements. Two hours credit. First semester. A course for chemical-engineering students, covering elementary mechanism and empirical design, and also exercises in shop production. Prerequisites, Engineering Drawing 1 and 2, Machine Construction 1 and 2, and enrollment in Machine Construction 5. Sluss.

50.—Machine Design II. Five hours credit. Second semester, Problems in the design of general machine parts, including cylinders, plates, springs, riveted joints, bearings, journal shafts, gears, pulleys, and belts. Lectures, recitations, and drawing. Prerequisite, enrollment in Mechanics 51. Dent.

51.—Thermodynamics. Three hours credit. First semester. The relation between heat and mechanical energy; theory of heat engines. Must be preceded by Physics 7*a* and Calculus I and II. Dent.

52.—Heat-engine Theory. Three hours credit. First semester. A course treating the science of thermodynamics more briefly than in the preceding course and including engine applications. Prerequisites, Physics 7*a* and Calculus I and II. Dent.

53.—Machine Design III. Three hours credit. Second semester. A shorter course for electrical-engineering students, covering the same general ground as M. E. 50. Dent.

54.—Heating, Ventilating, and Refrigerating. Two hours credit. Second semester. Laws of heat transfer, amount of air required for ventilation, methods and apparatus employed in modern buildings, central heating plants. Sluss.

55.—Mechanics of Machinery. Three hours credit. Second semester. Graphical and analytical methods of determining velocities and

accelerations in mechanisms. Graphical statistics of mechanism. Shaking forces, balancing, dynamics of governors, critical speeds of shafting. Lectures, recitations and problems. Prerequisites, Calculus II and Mechanics 51. Dent.

56.—Motive Power Machinery. Three hours credit. Second semester. Includes a brief review of the thermodynamics of steam and gas engines and turbines. Determination of sizes for given horsepower; methods of compounding, regulation and balancing; study of details, including valves and valve gears, cylinders, rotating and reciprocating parts of engines, and nozzles, blades, and rotors of turbines. Prerequisite, M. E. 51 or M. E. 52. Dent.

57.—Steam-engine and Turbine Design. Three hours credit. Second semester. Application of principles covered in course M. E. 50 to the design of special types of turbines. Prerequisites, M. E. 50 and M. E. 56. Sluss.

58.—Gas-engine and Compressor Design. Two hours credit. First semester. General theory and practice of gas-engine and compressor design and construction. Students may enroll for three hours credit. Sluss.

60.—Automotive Engineering. Three hours credit. First semester. Lectures, recitations, and design. Measurements and observations made on automotive machinery. Laboratory work includes study of types, sizes and methods of operating automotive equipment, and the testing of automotive engines. Prerequisite, M. E. 51. Sluss.

61.—Structural Design. Two hours credit. Second semester. Stresses in steel and reinforced concrete buildings, and design of members of the structure; design of chimneys, bins, and retaining walls. Sluss.

64.—Mechanical Laboratory. One hour credit. Second semester. Calibration of thermometers and indicator springs, physical properties of lubricating oils, valve setting, commercial testing of boilers, engines, and pumps. Prerequisite, M. E. 6. Tait, Wilder.

65.—Power Laboratory. One and one-half hours credit. First semester. Calibration of apparatus, fuel testing, laboratory tests of steam and gas prime movers, complete power-plant test. Outside preparation of preliminary and final reports. Prerequisites, Mechanical Engineering 4, and 52. Sluss, Tait, Wilder.

66.—Heat-engine Laboratory. One and one-half hours credit. Second semester. Study of experimental engineering methods and their application to complete tests of boilers, steam and gas prime movers, compressors, and refrigerating units. Drill in report writing, and outside reading of literature bearing on power development. Prerequisites, Mechanical Engineering 56 and 64. Sluss, Tait, Wilder.

67.—Thesis. Three hours credit. Senior, both semesters. Walker, Sluss, Dent.

68.—Summer Vacation Work. Two months to be spent in regular work in some shop or manufacturing plant of good standing. A report on the work is required.

COURSES FOR GRADUATES.

100.—Advanced Engineering Laboratory. Five hours credit. Both semesters, by appointment. Research work in some line connected with power development, fuels, lubrication or refrigeration, as may be selected in consultation with the instructor. Walker, Sluss, Tait.

101.—Advanced Designing. Five hours credit. Both semesters, by appointment. The course calls for a complete design in all details of some machine or of a plant for manufacturing or power development purposes. Steam and gas machinery and systems of power transmission are given particular attention. Sluss.

102.—Research Course. Five hours credit. Each semester, by appointment. A full presentation of some engineering subject to be selected in consultation with the instructor in charge. It may be a subject which is being treated in course 100 or 101. Walker, Tait.

103.—Advanced Thermodynamics. Three hours credit. First semester, by appointment. An advanced course based on the mathematical theory of heat interchanges. Open to those who have taken the undergraduate course in the School of Engineering, or its equivalent. Dent.

104.—Combustion Methods. Three hours credit. Second semester. Principles of correct combustion; smoke prevention; thermal efficiency. Lectures and laboratory exercises. Sluss.

155.—Mechanics of Machinery. Three hours credit. Second semester. Dent.

MECHANICS.

Professor: Rice (H. A.).
Associate Professor: Brown.
Assistant Professors: Jones (J. O.), Vawter.

50.—Theoretical Mechanics. Five hours credit. Junior, both semesters, five hours. A study of the laws of statics and dynamics. Action of forces upon bodies, and the resulting motions. Required of all engineering students. Prerequisite, Calculus I. Brown, Vawter.

50*a*.—Theoretical Mechanics. Two hours credit, second semester of the sophomore year. Vawter.

50*b*.—Theoretical Mechanics. Three hours credit, first semester, junior year. Courses 50*a* and 50*b* cover the same ground as Mechanics 50. Brown, Vawter.

51.—Strength of Materials. Four hours credit. Junior, both semesters, four hours. The theory of resistance to stress and application to engineering construction. Required of all engineering students. Prerequisite, Mechanics 50. Brown, J. O. Jones, Vawter.

52.—Testing of Materials. One hour credit. Junior, both semesters. A laboratory course to accompany course 51. The testing of iron, steel, wood, and other materials of construction for resistance to tension, compression, torsion, bending, and shearing. Experimental determination of the limits of safe loading. The testing of paving brick. Brown, J. O. Jones, Vawter.

53.—Graphic Statics. Two hours credit. Junior, second semester. The properties of equilibrium polygons and other methods of representing the action of forces, with application to the determination of stresses in beams, trusses, and arches. Lectures and drawing. Prerequisite, Mechanics 50. Brown.

54.—Engineering Materials. Two or five hours credit. First semester. A study of the methods of manufacture of structural materials and the different means and machines used in their testing. Opportunity will be given for specialization along some particular line, if desired, and considerable experimental work may be done in the laboratory. Recitations, lectures, library, and laboratory work. Optional for seniors. Prerequisite, Mechanics 51. H. A. Rice.

55.—Hydraulics. Three hours credit. Both semesters. A study of the laws governing the pressure and flow of liquids. Methods of measurement of flowing water. Stream gaging, conveyance and distribution of water by pipes and open channels. Required of junior civil-engineering and senior mechanical-engineering students. Prerequisite, Mechanics 50. J. O. Jones.

56.—Hydraulic Laboratory One hour credit. Both semesters. A course to accompany course 55. Experimental work with the flow of water over weirs and through orifices and pipes. Calibration of instru-

ments. Testing of hydraulic machinery. Required of junior civil-engineering and senior mechanical-engineering students. J. O. Jones.

57.—Hydraulic Cement. One hour credit. Second semester. A laboratory course in testing hydraulic cements and making comparison of their qualities. Reading, experimental work, and reports of tests made. Vawter.

58.—Hydraulic Power Three hours credit. First semester. Water-power development. Rainfall and run-off, stream flow, preliminary plant layout, selection of standard water turbines. Senior optional. J. O. Jones.

COURSES FOR GRADUATES.

154.—Engineering Materials. Five hours credit. First semester. Rice.

155.—Hydraulics. Three hours credit. Both semesters. Jones.

158.—Hydraulic Power. Three hours credit. First semester. Jones.

MINING ENGINEERING.

Professors: Young, Humble.
Associate Professor: Grider.

1.—Elements of Mining. Three hours credit. Second semester. Prospecting, well drilling, open-pit mining, developing, first-aid training. Open to students in the College. Young.

2.—Mine Surveying. One hour credit. Second semester. Prerequisites, Civil Engineering 1 and 2. Young.

52.—Mining Law. One hour credit. Second semester, alternate years, next given in 1922. Humble.

53.—Ore Dressing I. Two hours credit. First semester. One lecture and three hours laboratory. Crushing, screening, concentration, coal washing. A modified course, three hours credit, Principles of Ore Dressing, is open to juniors and seniors in the College and School of Engineering. Grider.

54.—Metal Mining. Two hours credit. First semester. Development and extraction; explosives. Young.

55.—Mining Hydraulics. Two hours credit. Second semester. Theory of hydraulics, water power, and placer mining. Grider.

56.—Mine Plant and Mill Design. Two hours credit. First semester. One lecture and three hours drafting. Prerequisite, Mechanics 50. Grider.

57.—Mine Administration. One hour credit. Three hours per week, last third of second semester. Young.

58.—Ore Dressing II. Four hours credit. Second semester. Fine grinding, screening, concentration, flotation, sampling. Prerequisite, Physics 7*a*. Grider.

59.—Mine Examination and Reports. Two hours credit. Second semester. Grider.

60.—Thesis. Three hours credit. Second semester. Young, Grider.

61.—Coal Mining I. Two hours credit. First semester. Ventilation, explosives, explosions. Young.

62.—Coal Mining II. Three hours credit. Second semester. Mining systems, haulage, hoisting, surface plants. Prerequisites, Mining Engineering 1 and 61. Young.

63.—Mine Plant and Mill Design II. Three hours credit. Second semester. One lecture, six hours drafting. Prerequisite, Mining Engineering 56. Grider.

64.—Mining Engineering. Three hours credit. First semester. Compressed air and electricity; haulage and hoisting. Young.

65.—Summer Work. Evidence of experience is required; this may be gained by investigation of a mining district under direction of an instructor for six weeks, or by employment.

66.—Ore Dressing III. Four hours credit. Both semesters. Senior or graduate. Two lectures and six hours laboratory. Special studies in flotation, cyanidation, etc. Prerequisites, Mining Engineering 53 and 58. Grider.

67.—Mineral Land Surveying. Two hours credit. First semester. Senior and graduate. One lecture and one afternoon field or drafting. Grider.

69.—Mining Geology. Two hours credit. First semester. Lithology, identification of rocks; effects of folding, faulting and igneous instrusions. Geological problems. Grider.

70.—Coal Preparation. Three hours credit. Second semester. Cleaning and sizing of coal. Young.

71.—Economic History of the Mineral Industries. Five hours credit. Senior and graduate students. First semester. A study of developments in the United States from the earliest recorded event to the present. Young.

72.—Economic History of Coal and Iron. Three hours credit. Senior and graduate students. Second semester. A study of the development of these industries in the United States, and their effect on the economic life of the country. Young.

73.—Research Course. Two to five hours credit. Senior and graduate students. Each semester. A supervised investigation of subjects directly related to the mineral industries. Young, Grider.

74.—Seminar. One hour credit. Each semester. A study of conditions and events of importance in the mining industries. Young, Grider.

COURSES FOR GRADUATES.

163.—Mine Plant and Mill Design. Three hours credit. Second semester. Grider.

164.—Mining Engineering. Three hours credit. Either semester. Young.

166.—Advanced Ore Dressing. Four hours credit. Second semester. Grider.

167.—Mineral Land Surveying. Three hours credit. First semester. Grider.

171.—Economic History of the Mineral Industries. Five hours credit. Young.

172.—Economic History of Coal and Iron. Three hours credit. Young.

173.—Research Course. Two to five hours credit. Young, Grider.

TECHNICAL REPORTS AND THESES.

Special written reports are required from each student at certain times during his course of study, generally one in each semester of the sophomore year, one in the junior year, and one in the senior year. A student enrolled for technical report I, II, III, or IV confers with his instructor for assignment of the subject on or before October 15 for the first semester, or March 15 for the second semester. The finished reports must be in the instructors' hands by January 15 and May 15 of the respective semesters. Each report counts for one-half credit.

A thesis or an approved substitute course is required for graduation. (See "Thesis" in the description of courses of the professional departments.)

Standard requirements for the make-up of technical reports, theses, and other written papers are specified in an official circular to be had at the dean's office.

SUMMER WORK.

In several of the courses of study practical work in one or two summers is required. This work is not measured in terms of credit hours, although in fixing the requirements for graduation one or two additional credit hours are required in those courses of study which do not include summer work.

There is usually abundant opportunity for students of junior standing to find employment with industrial concerns, in work that is both remunerative and valuable as experience. Students of whom this work is required will submit to their department head professors full reports on the work which they have done under this arrangement.

English Language and Literature.

Professors: DUNLAP (Head of Department), HOPKINS, O'LEARY, WHITCOMB, SISSON, JOHNSON, ‡RAYMOND.
Associate Professors: LYNN, GARDNER.
Assistant Professors: BURNHAM, *MORGAN, WINSTON, †LAIRD, *‡WATTLES, NELSON.
Instructors: HOOPES, ‡WILSON, BARNES, SPANGLER, FOSTER, HULL, MELVIN, MITCHELL, DOLBEE, ‡GREENE, §BAILEY.
Assistant Instructor: LYNAM.

EQUIPMENT. Apart from a number of portraits and historical maps, the equipment for this department is the University library, in which are collections of volumes and periodicals relating especially to rhetoric and composition, to English literature, and to the English language. There are complete sets of journals, such as *Anglia and Englische Studien*, and the publications of the early English Text Society, the Chaucer Society, the English and American Dialect Societies, the Spenser Society, the Shakespeare Society, the New Shakspere Society, the Shelley Society, the Browning Society, and others. The library also possesses the Shakespeare Jahrbuch, and facsimiles of the quartos and folios of Shakespeare. The total number of volumes pertaining to the subjects in this department is 14,696. Of these, 1,313 are devoted to Shakespeare, 8,940 to other English literature, 829 to English philology, and 3,614 to American literature.

PREREQUISITES. *College and School of Fine Arts:* Courses 1, 2, 10 and 11, or their equivalents, must be completed before the student can be admitted to any other course in the department. Courses 12-14 or 13-15, or their equivalent, are, in the case of all students whose major is English, prerequisite to all succeeding courses in English literature. In special cases juniors or seniors may be allowed, with the consent of the department, to take an advanced course in connection with 12, 13, 14 or 15.

School of Engineering and School of Pharmacy: Courses 1E and 2E must be completed before the student can be admitted to any other course in the department.

Requirements for Major in the College: English 1, 2, 10, 11, 12-14 or 13-15, and five hours of composition in addition to courses 1 and 2.

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* Absent on leave, 1920-'21.
† Absent on leave second semester, 1920-'21.
‡ Assigned to School of Engineering.
§ Appointed for the second semester, 1920-'21.

Requirements for the Master's Degree: (1) Prerequisites to candidacy: English 1, 2, 10, 11, 12 and 14, or their equivalents; five hours of advanced composition; ten hours of advanced English literature (in certain cases some substitutions may be accepted). (2) Students whose preparation proves inadequate may be required to take certain courses without graduate credit. (3) A complete schedule of work must be approved before the student is accepted as a candidate for the degree. (4) Three hours of Old English is required. (5) Fifteen of the total thirty hours credit must be in strictly graduate courses or investigation. (6) Six to ten hours credit will be allowed for work on the Thesis, which work ordinarily must extend over a period of at least six months.

RHETORIC AND COMPOSITION.

COURSES FOR FRESHMEN.

1.—RHETORIC I. Three hours credit. First semester. Written exercises, with study of rhetorical theory. Required of all freshmen in the College and School of Fine Arts not offering for entrance a fourth unit in English composition. Gardner and assistants.

1E.—RHETORIC I. Three hours credit. First semester. Written exercises, with study of rhetorical theory. Required of freshmen in the School of Engineering and the School of Pharmacy.
Wilson and assistants.

2.—RHETORIC II. Two hours credit. Second semester. A continuation of course 1. Required of all freshmen in the College and School of Fine Arts not offering for entrance a fourth unit in English composition.
Gardner and assistants.

2E.—RHETORIC II. Two hours credit. Second semester. A continuation of course 1. Required of freshmen in the School of Engineering and the School of Pharmacy. Wilson and assistants.

Credit for courses 1 and 2 and 1E and 2E is given provisionally and will be withdrawn for subsequent use of notably bad English.

COURSES FOR SOPHOMORES, JUNIORS AND SENIORS.

3.—THE PRINCIPLES OF ARGUMENTATION. Three hours credit. First semester. Not open to freshmen. Hopkins.

50.—NARRATION AND DESCRIPTION. Three hours credit. First semester. Recommended as preparation for English 55 to 58, inclusive.
O'Leary, Lynn.

51.—NARRATION AND DESCRIPTION. Two hours credit. Second semester. Prerequisite, course 50. O'Leary, Lynn.

52.—EXPOSITION. Two hours credit. First semester. Recommended as preparation for English 55 to 58, inclusive. Gardner.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

53.—ADVANCED ARGUMENT. Three hours credit. Second semester. Prerequisite, course 3. Hopkins.

55.—LITERARY CRITICISM. Two hours credit. First semester. Principles and practice of critical writing. Hopkins.

56.—VERSIFICATION. Two hours credit. First semester. Hopkins.

57.—ESSAY WRITING. Two hours credit. Second semester.
O'Leary.

58.—PROSE INVENTION. Two hours credit. Second semester. Theories of literary art, with practice in original writing. Prerequisites, at least one of the following courses: 50, 51, 52, 53, 55, 57 or equivalent.
Hopkins.

59.—Advanced Composition I. Three hours credit. Both semesters. Required of all students in the School of Engineering; optional in the School of Pharmacy. Raymond.

59 A.—Advanced Composition II. Three hours credit. Continuation of course 59. Optional in the School of Engineering. Raymond.

LANGUAGE.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

60.—Elementary Old English. Three hours credit. First semester. Burnham.

61.—Beowulf. Two hours credit. First semester. Prerequisites, courses 60 and 64. Burnham.

62.—Middle English. Two hours credit. First semester. Burnham.

63.—Middle English. Three hours credit. Second semester. Reading of Middle English texts, with emphasis on the literary development of the period. Prerequisite, course 60. To be given in 1923 and alternate years thereafter. Burnham.

64.—Advanced Old English. Two hours credit. Second semester. Prerequisite, course 60. To be given in 1922 and alternate years thereafter. Burnham.

68.—Modern English Grammar. Two hours credit. First semester. Burnham.

69.—English Etymology. The native element. Three hours credit. Second semester. To be given in 1922 and alternate years thereafter. Burnham.

70.—English Usage. Two hours credit. Second semester. Consideration of the principles governing usage, and of specific problems in contemporary English. To be given in 1923 and in alternate years thereafter. Not open to graduates. Burnham.

LITERATURE.

COURSES FOR UNDERGRADUATES.

10.—English Literature. Two hours credit. First semester. A study of representative authors. Prerequisite for all other courses in the department above 11, except 59 and 59A; but not required of students who offer for entrance a fourth unit in English literature. Required of sophomores in the School of Fine Arts. Johnson and assistants.

11.—English Literature. Three hours credit. Second semester. Continuation of course 10. Prerequisite for all later courses in the department, with the exceptions indicated under course 10. Required of sophomores in the School of Fine Arts. Johnson and assistants.

12 and 13.—History of English Literature. 12, three hours credit; 13, two hours credit. The two courses begin at the same point. First semester. Prerequisites, English 1, 2, 10 and 11. Lynn and assistants.

14 and 15.—History of English Literature. 14, two hours credit; 15, three hours credit. Second semester. Prerequisites, English 1, 2, 10 and 11. Course 14 is a continuation of course 12, and course 15 of course 13. Lynn and assistants.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

71.—American Literature I. Three hours credit. First semester. From the beginning to 1865. Hopkins.

72.—American Literature II. Three hours credit. Second semester. From 1865 to the present time. Hopkins.

73.—English Literature of the Eighteenth Century. Two hours credit. First semester. From 1660 to 1735. O'Leary.

74.—English Literature of the Eighteenth Century. Three hours credit. Second semester. From 1735 to 1798. O'Leary.

75.—Victorian Literature. Two hours credit. First semester. Dunlap.

76.—English Literature of the Nineteenth Century. Three hours credit. First semester. Prose exclusive of the novel. Dunlap.

77.—English Literature of the Nineteenth Century. Three hours credit. Second semester. Poetry. Dunlap.

78.—Shakespeare. Three hours credit. Both semesters. Three plays. Dunlap.

79.—Chaucer. Three hours credit. First semester. Dunlap.

80.—Shelley and Keats. Two hours credit. Second semester. Dunlap.

81.—Browning and Tennyson. Two hours credit. Second semester. Lynn.

82.—Carlyle and Emerson. Two hours credit. Second semester. Given in 1922 and each alternate year following. Johnson.

83.—Milton and His Contemporaries. Two hours credit. Second semester. Given in 1923 and each alternate year following. Johnson.

85.—Technic and Theory of the Drama. Three hours credit. First semester. Whitcomb.

86.—History of the English Drama. Three hours credit. First semester. From the early liturgical plays to 1642. Johnson.

87.—History of the American and Modern European Drama. Three hours credit. Second semester. Whitcomb.

88.—The English Novel. Three hours credit. Second semester. From Defoe to Meredith. Dunlap.

89.—The English Essay. Three hours credit. Second semester. The essay as a literary form from Bacon to the present time. O'Leary.

91.—Biography and Autobiography. Two hours credit. First semester. A comparative study of individual experience as shown in selected masterpieces. Whitcomb.

COURSES FOR GRADUATES.

103.—Introduction to Comparative Literature. Three hours credit. Second semester. Whitcomb.

106.—English Prose of the Eighteenth Century. Three hours credit. First semester. O'Leary.

107.—History of English Criticism. Two hours credit. Second semester. Hopkins.

108.—Later Nineteenth Century Verse. Three hours credit. Second semester, twice a week. Arnold, Clough, Swinburne, the Rosettis, and William Morris, with a brief survey of certain minor poets. Johnson.

109.—History of the Literature and the Teaching of Rhetoric in English. Two hours credit. First semester. O'Leary.

110.—History of English Prosody. Two hours credit. Second semester. Whitcomb.

111.—Epic Poetry. Three hours credit. First semester. Whitcomb.

114.—History of the English Language. Three hours credit. Second semester. Prerequisites, Elementary Old English and a reading knowledge of German. Burnham.

115.—Development of English Prose. Two hours credit. First semester. From 1350 to 1660. Sisson.

123 and 124.—Seminar. Both semesters. Individual research by properly qualified students under the direction of the graduate committee. Designed in part for students preparing theses for the master's degree. Available divisions are the following:

(*a*) *Literature:* Historical or critical study. Three to five hours credit. Whitcomb, Johnson.

(*b*) *Pedagogy:* Problems of English teaching and supervision. Two to four hours credit. Hopkins.

(*c*) *Language:* Problems in the morphology and syntax of the English language. Three to five hours credit. Burnham.

Entomology.

Professors: Hunter (Head of Department), Hungerford.
Assistant Professor: Lawson.
Instructor: Readio.
Assistant Instructor: Hackman.

Equipment. The arrangement of the laboratories is such as to provide for (1) general instruction; (2) research work in serial-breeding experiments and conditions governing development. Special thermal regulators for determination of influence of temperature on development are used in these researches. A feature of great value is the recent completion of the cross-reference card index to the current entomological literature. An insectary with greenhouse adjoining has, in addition to regular insectary equipment, special facilities for the study of aquatic life. The extensive collections, both biologic and systematic, offer exceptional facilities for comprehensive instruction in the various groups. A more extended notice of these collections will be found under the head of Museums. A large series of cabinets has been especially arranged to aid in teaching. These are supplemented by models illustrating developmental processes.

Advice as to Choice of Courses. The courses in entomology are designed to meet the needs of three classes of students: (1) The general student who desires a fuller knowledge and appreciation of the biological problems illustrated by insect life; (2) the student who is preparing to teach botany zoölogy or general biology in the high school; (3) the special student who is preparing to become a teacher or investigator. For the first class, courses 1, 2, 3 and 53 are recommended; for the second class, in addition to these, courses 51, 58 and 60. For the third class, after the completion of the four fundamental courses, the aims of each student will largely determine the selection of advanced courses. Students majoring in the department are recommended to take after course 58, Protozoölogy 71. The advice of the department is that such selection shall be made only after consultation.

1.—Introductory Entomology I. Courses for freshmen and sophomores. Five hours credit. Both semesters. A general course in life and behavior of insects and other arthropods, and their relations to plants and other animals. A field, laboratory and lecture course with recitations designed for the general student. Fee, $1.
Hungerford, Lawson and assistants.

2.—Introductory Entomology II. Five hours credit. Second semester. This course is a continuation of entomology I, and during the

present period special emphasis will be given to those forms and problems which have a direct bearing on food conservation. Prerequisite, course 1. Hungerford.

3.—Morphology of Insects I. Three hours credit. First semester. A course presenting the more general features of the form and structure of a few representative insects. Laboratory study, lectures, and assigned readings. Prerequisite, course 1 or equivalent. Fee, $1.50. Lawson.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—Introductory Entomology. Five hours credit. First semester. A general course in life and behavior of insects and other arthropods, and their relations to plants and other animals. A field, laboratory, and lecture course with recitations. Not open to students who have had course 1. Fee, $1. Hungerford.

51.—Morphology of Insects II. Three hours credit. Second semester. A study of the internal structure and development of a few representative types of insects, and their bearing upon physiological processes of life. Prerequisites, Entomology 1 and 2, or equivalent. Fee, $1.50. Lawson.

52.—Systematic Entomology. Two hours credit. Both semesters. This course gives special prominence to the systematic position of the orders studied. The laboratory work consists of the classification of insects, and is accompanied by studies in the life history of the various forms identified. Prerequisite, Entomology 1, 2 and 3, or equivalent. Fee, $1. Hackman.

53.—Biology of the Arthropoda. Two hours credit. Second semester. This course, conducted in field and laboratory, deals with ecology, adaptation to environment, mode of life, and such other general biological studies as illustrated in the lives of insects and other arthropods. Prerequisites, courses 1 and 2, or equivalent. Fee, $1. Hungerford.

54.—Advanced Morphology and Histology of Insects. Three hours credit. First semester. Prerequisites, courses 1, 2 and 51. Fee, $1.50. Hunter.

55.—Taxonomy of Insects. Three hours credit. Both semesters, by appointment. A continuation of course 52, enabling the student to undertake the serious study of some one family. Students qualified to take this course are afforded an opportunity to work with material secured on the biological survey trip of the previous summer. (Special study of the Coccidæ may be elected in this course.) Prerequisite, Entomology 1, 2 and 3. Fee, $1. Lawson, Hackman.

56.—Applied Entomology I. Two hours credit. First semester. Lectures, recitations, and observations in the field on forms of economic value; life histories, habits, and methods of combating the injurious forms, and of utilizing the beneficial. Prerequisite, courses 1 and 2, or equivalent. Fee, $1. Readio.

57—Applied Entomology II. Two hours credit. Second semester. A continuation of course 56. This course deals especially with those insects that are intimately associated with the household, the garden, and the farmyard. Course 56, which deals with the insects of farm and orchard crops, is not a prerequisite for this course, which is nontechnical, and is intended for the general student. Readio.

58.—Insects and Public Health. Two hours credit. First semester. A study of the relations of insects and other arthropods to public health. A lecture, recitation, and demonstration course for the purpose of acquainting the student with those forms which are liable to transmit human diseases. Hunter.

59.—Evolution of the Insect Wing. Three hours credit. Second semester, alternate years, beginning spring of 1921. A study of the development of the wing and wing venation, special emphasis being laid on the Comstock-Needham system of nomenclature. Prerequisite, Entomology I or equivalent. Lawson.

60.—Agriculture. Two hours credit. First semester. This course must be taken in combination with Botany 60. Hungerford.

61.—Field Entomology and Insectary Methods. Two hours credit. First semester. A study of methods of collecting and of rearing insects. It is intended to serve two purposes; first, to give those intending to teach biology some knowledge of the handling of the material most available for their work; and second, to afford some training to those who purpose to carry on experiment-station work. Prerequisite, Entomology 1 and 2, and one course in Applied Entomology, or its equivalent. Fee, $1. Hungerford.

64.—Special Problems. Three to five hours. Both semesters. Open to seniors only who are ready to take up some special problem which may either be completed as an undergraduate study or be the beginning of a problem leading to an advanced degree. The Staff.

65.—Insect Bionomics. Two hours credit. Throughout the year. Alternate years, beginning fall, 1921. Lectures, readings and discussions on fundamental biological laws as illustrated by arthropods. Hunter.

FOR GRADUATES.

100.—Original Investigation. Five hours credit. Throughout the year, by appointment. Fee, $1. Hunter.

101.—Field Entomology, Biological Survey. Five hours credit. Throughout the year, including the summer session. The department is engaged in a survey of insect life in the state. This work will be resumed at the opening of the summer session. The course consists of a taxonomic and biologic study of all existing forms, investigations in their life histories, and relations to environments. Appointments on this survey are made through consultation with the department. Hunter.

102.—Morphological Development. Five hours credit. Throughout the year. Problems assigned with reference to the attainments of individual students. Fee, $1.50. Hunter.

103.—Orchard and Forest Life. Five hours credit. Throughout the year. The State Entomological Commission is conducting a comprehensive and detailed survey of the insect life as it pertains to the orchards and forestry of the state. In this work special attention is given to statistical methods and detailed illustrations of distribution by means of maps and charts. A limited number of well-prepared students may receive appointments for credit on this work. Hunter.

104.—Conference. One hour credit. Throughout the year, by appointment. This course affords an opportunity for the presentation and discussion of current research in this branch of science. During the present year the subject for consideration is the influence of chemical and climatic stimuli upon developing forms. Hunter.

105.—Advanced Taxonomy of Insects. Five hours credit. Throughout the year, by appointment. Fee, $1. Hunter.

151.—Morphology of Insects. Three hours credit. First semester. Fee, $1.50. Lawson.

152.—Systematic Entomology I. Two hours credit. First or second semester. Fee, $1. Lawson.

153.—Biology of the Arthropods. Two hours credit. First or second semester. Fee, $1. Hungerford.

154.—Advanced Morphology of Insects. Three hours credit. Throughout the year, by appointment. Fee, $1.50. Hunter.

155.—Taxonomy of Insects. Three hours credit. First or second semester, by appointment. Fee, $1. Hungerford, Lawson.

156.—Applied Entomology. Two hours credit. First semester. Fee, $1. Hungerford.

157.—Applied Entomology II. Two hours credit. Second semester. Hungerford.

158.—Insects and Public Health. Two hours credit. First semester. Hunter.

159.—Evolution of the Insect Wing. Three hours credit. Spring term, odd years. Lawson.

160.—Agriculture. Two hours credit. First semester. Hungerford.

161.—Field Entomology and Insectary Methods. Two hours credit. Hungerford.

162.—Apiculture. A research course dealing with the comparative anatomical studies in the various strains of bees and individual colonies of each strain. By appointment. Hunter.

165.—Insect Bionomics. Two hours credit. Hunter.

166.—Teachers' Course. Three hours credit. Second semester, by appointment. Hungerford.

Fine Arts.

For convenience, all fine-arts courses are listed alphabetically under two general heads: (1) Music; (2) Art.

MUSIC.

All music courses are primarily for School of Fine Arts students. Students in other schools of the University may carry a small amount of applied music without credit, by securing the permission of the dean of the school in which they are registered.

Music Credits in the College.

College students who desire to secure music credits toward the Bachelor of Arts degree must carefully note the following regulations:

History of Music 50 and 51 are College courses and are open for credit to all juniors and seniors in the College.

Musical Theory 1 to 15 are courses in the School of Fine Arts and are open for credit to College juniors and seniors.

Not to exceed six hours credit in regular courses in piano, organ, voice or violin in the School of Fine Arts will be permitted College juniors and seniors.

Such courses must be preceded or accompanied by an equal number of hours in the musical theory courses.

Not more than fifteen hours in School of Fine Arts courses may be counted toward the degree Bachelor of Arts.

Music Credits in the School of Education.

Candidates for the degree B. S. in Education may, under Option I, offer a minor in theoretical or applied music of twenty hours. Under Option II, a major of thirty hours, or a minor of twenty hours may be offered.

Music Credits in the Graduate School.

Music courses numbered from 100 to 149 are graduate courses and may be offered for credit toward the Master of Arts degree under the conditions stated in the description of the courses.

Music courses numbered from 150 to 199 are graduate courses and may be offered for credit toward the Master of Music degree under the conditions stated in the description of the courses.

CHORUS.

Instructor: HASELTINE.

Chorus 1 to 6 are required of all vocal students in the degree or certificate courses.

Chorus 1 to 4 are required of all public-school music students.

CHORUS 1 to 6.—One and one-half hours rehearsal each week. Study of the standard cantatas, etc.; miscellaneous sacred and secular choruses. Throughout the year. One hour credit each semester. Haseltine.

ENSEMBLE.

Professor: KENDRIE.
Assistant Professor: GREISINGER.

1.—ENSEMBLE. One hour credit. First semester. The study of simple ensemble, beginning with the duet form and advancing to work at two pianos; symphonies by Haydn, Mozart, Beethoven; famous overtures; compositions by Grieg, Moszkowski, Bizet, Schubert, Jensen, Mendelssohn. Greisinger.

2.—ENSEMBLE. One hour credit. Second semester. Continuation of Ensemble I. Arrangements of classics for two pianos, four and eight hands; original two-piano compositions by Arensky, Debussy, Saint-Saëns, Chaminade, Grieg, Schumann. Greisinger.

3.—ENSEMBLE. One hour credit. First semester. The study of compositions for strings and piano. Compositions for two violins and piano by Purcell, Carse and others; for three violins and piano by Taylor, Trousselle, Rieding, Hayward, together with the smaller orchestral compositions of Bizet, Wagner, Nesler, Moszkowski, Saint-Saëns, etc. Kendrie.

4.—ENSEMBLE. One hour credit. Second semester. Continuation of Ensemble 3. The study of the larger forms of composition; trios by Schubert, Beethoven, Strauss, Moszkowski; sonatas for violin and piano by Grieg, Gade, Brahms and Franck; concertos by De Beriot, Mendelssohn, Saint Saëns and Wieniawski; string quarters by Haydn, Mozart, Schubert and Beethoven. Kendrie.

HISTORY OF MUSIC.

Professor: SKILTON.

Textbook, "Outlines of Music History," by Clarence Hamilton, published by Ditson. Lectures and recitations, with musical illustrations by instructors, members of the class, and on the Victrola, making the students familiar with the actual music of the period studied. Outside reading and preparation of a paper is required for each recitation, and a notebook must be handed in at the end of each semester.

1. HISTORY OF MUSIC. Two hours credit. First semester. Primitive music; savage and oriental music; music of the ancient cultured nations; music of the early Christian church; the Roman Catholic liturgy and chant; popular music in the Middle Ages; the beginnings of polyphonic music; age of the Netherlanders; choral music in the sixteenth century; early German Protestant music; Protestant church music in England; beginning of the opera and the monodic style; growth of instrumental music; organ, violin and piano. Skilton.

2.—HISTORY OF MUSIC. Two hours credit. Second semester. Italian opera, serious and comic, in seventeenth and eighteenth centuries; opera

in France and England in seventeenth century; Italian style in German church music; Bach and Handel; opera comique in the eighteenth century; Gluck, Haydn, and Mozart. Skilton.

3.—History of Music. Two hours credit. First semester. Beethoven; Weber and the romantic opera; Schubert and the German song; piano playing to 1830; Schumann, Mendelssohn and Chopin; program music; Berlioz and Liszt; Italian and French opera in first half of the nineteenth century. Skilton.

4.—History of Music. Two hours credit. Second semester. Wagner and the opera; modern music of Germany and Austria; modern music of France and Italy; modern Slavonic and Scandinavian music; modern music in England and America; the ultra-modern movement Skilton.

COURSES IN THE COLLEGE OF LIBERAL ARTS.

50.—Appreciation of Music. Two hours credit. First semester, at 10. A course for those who wish to learn to understand music as listeners without necessarily being performers. The different styles of music are explained and illustrated, with special reference to the University concerts. Skilton.

51.—Development of Music. Two hours credit. Second semester, at 10. Detailed examination of famous composers, with reference to the history of their time and country. Skilton.

FOR CREDIT TOWARD THE MASTER OF MUSIC DEGREE.

161 and 162. History of Music. Three hours credit. Each semester, by appointment. Seminar and research, along special lines of development of musical forms, to be embodied in a thesis. Skilton.

MUSICAL THEORY.

Professors: Skilton, Kendrie.
Assistant Professor: Sweeney.
Instructors: Soderlund, Ford.

Courses 1 to 6, 11, 12 and 15 are required of all students in the courses leading to a degree. Students who do not take courses 7 and 8 in the junior year must take courses 13 and 14 in the senior year.

Courses 1 to 4, 11 and 12 are required of all students in the two-year public-school music course.

Courses 9 and 10 may be taken only at the invitation of the instructor.

1.—Harmony. Two hours credit. Both semesters. The study of overtones, scales, intervals, triads and seventh chords and their inversions. The practical work consists of harmonizing melodies in soprano or bass and playing chord progressions at the piano.
Sweeney, Soderlund, Ford.

2.—Harmony. Three hours credit. Both semesters. The study of close and open harmony, dominant ninth and diminished seventh chords, modulations. Practical work continued.
Sweeney, Soderlund, Ford.

3.—Harmony. Two hours credit. First semester. The study of modulation, irregular resolutions, altered chords, suspensions, passing tones, organ point, harmonization of florid melodies. Practical work continued. Kendrie.

4.—Harmony. Two hours credit. Second semester. Suspensions, passing tones, appoggiaturas, neighboring tones, organ point, harmonization of florid melodies, analysis. Practical work continued. Kendrie.

5.—Counterpoint. Two hours credit. First semester. The different orders of single counterpoint in two, three and four parts. Skilton.

6.—COUNTERPOINT. Two hours credit. Second semester. Double and triple counterpoint, counterpoint in the twelfth and fifteenth and in more than four parts. Modern counterpoint. Skilton.

7.—MUSICAL COMPOSITION. One hour credit. First semester. The theme and variation, dance and song forms. Analysis of classical models, and practical work. Skilton.

8.—MUSICAL COMPOSITION. One hour credit. Second semester. The sonata and rondo forms; analysis of classical sonatas; original work. Skilton.

9.—MUSICAL COMPOSITION. One hour credit. First semester. Original work in modern forms. Open only to those who show talent for composition. Skilton.

10.—MUSICAL COMPOSITION. One hour credit. Second semester. Continuation of course 9. Open only to those who show talent for composition. Skilton.

11.—INSTRUMENTATION. One hour credit. First semester. The nature and treatment of the different instruments of the orchestra. The overture, symphony, cantata. Practical work for the University Orchestra. Skilton.

12.—INSTRUMENTATION. One hour credit. Second semester. Continuation of course 11. Skilton.

13.—FORM AND ANALYSIS. One hour credit. First semester. The hymn tune and short song form; motive, phrase and section; the song form with trio; dance forms as distinguished by rhythm and style; illustrations from Bach's Preludes, Inventions and Suites, and from short piano pieces and songs of modern composers. Skilton.

14.—FORM AND ANALYSIS. One hour credit. Second semester. The sonata and symphony; form of each movement; the overture, chamber music and fugue; the motet, cantata mass, passion, and oratorio; examination of at least one classical example of each. Skilton.

15.—CANON AND FUGUE. One hour credit. First semester. The various forms of canon and their use in composition. The fugue and original work. Skilton.

FOR CREDIT TOWARD THE MASTER OF ARTS DEGREE.

107 and 108.—COMPOSITION. Five or seven hours credit. By appointment. Original composition in large forms: suite, sonata, overture, cantata, concerto. Applicants must present original compositions in the smaller forms which show evidence of talent and mastery of material. Open to those who have completed the musical theory courses, 1 to 12, inclusive, and course 15 in the School of Fine Arts, or in a school of equal rank. Preyer, Skilton.

FOR CREDIT TOWARD THE MASTER OF MUSIC DEGREE.

159 and 160.—INSTRUMENTATION. Three hours credit. Each semester, by appointment. Candidates for the degree must score a complete program for a full orchestra. Open to music graduates of the School of Fine Arts, or of other schools requiring a like amount of work. Applicants must present scores in the smaller forms. Skilton.

163 and 164.—COMPOSITION. Three hours credit. Each semester, by appointment. Original composition in large forms: suite, sonata, overture, cantata, concerto. Open to graduates of the School of Fine Arts, or of other schools requiring a corresponding amount of work. Applicants must present original compositions in the smaller forms, which show evidence of talent and mastery of material. Preyer, Skilton.

ORCHESTRA.

Orchestra 1 to 8 are required of all violin students in the degree or certificate courses.

1 to 8.—ORCHESTRA. One hour credit. Throughout the year. One and one-half hours rehearsal each week in the University Orchestra. Study of the standard overtures, symphonies and miscellaneous orchestral numbers. One public concert each semester. Kendrie.

ORGAN.

Professor: SKILTON.
Instructor: SODERLUND.

1.—MANUAL AND PEDAL STUDIES. Six hours credit. Both semesters. Merkel or Archer. Pedal scales and arpeggios; the principles of hymn playing.

2.—MANUAL AND PEDAL STUDIES. Six hours credit. Both semesters. Buck's studies in Pedal Phrasing; Clemen's Organ Etudes; Bach's Little Preludes and Fugues, Flagler's The Organist's Treasury, and other selections.

3.—SERVICE AND SOLO PLAYING. Six hours credit. Both semesters. Buck's Choir Accompaniment. Various styles of hymn playing; accompaniment of solo and chorus. Schneider's Pedal Studies, easier preludes and fugues of Bach and Mendelssohn. Modern pieces by Batiste, Lemmens, Guilmant, and others.

4.—SERVICE AND SOLO PLAYING. Six hours credit. Both semesters. Arrangement for piano accompaniment for organ. Practice in accompanying singers. The easier sonatas of Mendelssohn, Merkel, Guilmant, and others.

5.—CHURCH AND CONCERT PLAYING. Seven hours credit. Both semesters. Practical work in playing the church service. The more difficult fugues and sonatas. Concert pieces by Widor, Guilmant, Saint-Saëns, Thiele, and others.

6.—CHURCH AND CONCERT PLAYING. Seven hours credit. Both semesters. Extemporization and transposition. Program making. Preparation of a recital.

7.—CHURCH MUSIC. One hour credit. Both semesters. The history of church music, examination of different schools and styles. Senior, first semester, one hour a week.

8 and 9.—ORGAN CONSTRUCTION. One hour credit. Throughout the year. Examination of tracker, tubular pneumatic, and electric action in available organs. Practice in tuning. One hour a week, junior year, by appointment.

FOR CREDIT TOWARD THE MASTER OF ARTS DEGREE.

103 and 104.—ORGAN. Five or seven hours credit. Each semester, by appointment. Greater preludes and fugue and chorale preludes of Bach, of modern German, French, English, and American masters. Oratorio accompaniment, and playing with orchestra. Open to those who have completed the piano courses 1 and 2, and the organ courses 1 to 6, inclusive, in the School of Fine Arts, or a school of equal rank. Applicants for admission must play before the fine arts faculty not less than three concert numbers, including a movement of a sonata or concerto, and give a public recital on completion of the course.

Skilton.

FOR CREDIT TOWARD THE MASTER OF MUSIC DEGREES.

153 and 154.—ORGAN. Seven hours credit. Each semester, by appointment. Greater preludes and fugues and chorale preludes of Bach, and the works of modern German, French, English and American masters. Oratorio accompaniment and playing with orchestra. Applicants

for admission must play before the fine arts faculty not less than three concert numbers, including a movement of a sonata or concerto, and give a public recital on completion of the course. Skilton.

PIANOFORTE.

Professor: PREYER.
Assistant Professors: GREISINGER, SWEENEY.
Instructors: SODERLUND, FORD.

1 and 2.—PIANO. Six hours credit. Both semesters. Hanon: Virtuoso Pianist. A limited number of studies from the following: Hoffman, Etudes for the Left Hand; Cramer-Buelow, Sixty Selected Etudes; Preyer, Twenty Etudes, op. 25 (Schirmer); Bach, two-part inventions (Litolff, No. 42), etc. Sonatas by Haydn, Mozart, Beethoven. Selections from classic and modern compositions.
Preyer, Greisinger, Sweeney, Soderlund, Ford.

3 and 4.—PIANO. Six hours credit. Both semesters. Pischna: Technical Exercises. Etudes, selected according to the needs of the pupil, from Jensen, op. 32; MacDowell, op. 39; Haberbier, Etudes Poeses, op. 53; Preyer, op. 30 and op. 45; Hollaender, Intermezzi for Left Hand; Bach, three-part inventions. Concertos by Mozart, Hummel, etc. Selections from classic and modern compositions.
Preyer, Greisinger, Sweeney, Soderlund, Ford.

5 and 6.—PIANO. Six hours credit. Both semesters. Phillipp: Daily Exercises. Clementi's Gradus ad Parnassum; Etudes from Moscheles, op. 70; Seeling, Concert Etudes, op. 10; Chopin, Preludes; Bach, Well-tempered Clavicord (Reincke, B. and H.); concertos by Beethoven, Mendelssohn, etc.; concert pieces by classic and modern composers.
Preyer.

7 and 8.—PIANO. Seven hours credit. Both semesters. Joseffy: School of Advanced Piano Playing. Phillipp, Etudes for the Left Hand; Etudes of Chopin, op. 10 and op. 25; Rubinstein, op. 23, etc. Sonatas and concertos by Beethoven, Weber, Grieg, etc. Concert pieces by modern composers. Preyer.

9 and 10.—TEACHING MATERIALS. One hour credit. Throughout the year. A study of teaching materials for piano. Each pupil is required to keep a notebook, teach one practice student and attend a one-hour class each week. Open to all students but freshmen, and to advanced special students. Required of all candidates for the three-year teacher's certificate in piano. Greisinger.

FOR CREDIT TOWARD THE BACHELOR OF ARTS DEGREE.

101 and 102.—PIANO. Five or seven hours credit. Each semester, by appointment. Etudes of Phillipp, Liszt, MacDowell and others; transcriptions of Bach's organ fugues by Liszt, Tausig, Busoni; modern concert pieces and concertos. Open to those who have completed the piano courses 1 to 8, inclusive, in the School of Fine Arts, or in a school of equal rank. Applicants for admission must play before the fine arts faculty not less than three concert numbers, including a movement of a sonata or concerto, and give a public recital on completion of the course. Preyer.

FOR CREDIT TOWARD THE MASTER OF MUSIC DEGREE.

151 and 152.—PIANO. Seven hours credit. Each semester, by appointment. Etudes of Phillipp, Liszt, MacDowell and others; transcriptions of Bach's organ fugues by Liszt, Tausig, Busoni; modern concert pieces and concertos. Open only to piano graduates of the School of Fine Arts, or of other schools requiring a corresponding amount of work. Applicants for admission must play before the fine arts faculty not less than three concert numbers, including a movement of a sonata or concerto, and give a public recital on completion of the course. Preyer.

PUBLIC-SCHOOL MUSIC.

Music Supervisors' Course.

Professor: DOWNING.
Instructor: HALL.

1.—TEACHING OF MUSIC IN ELEMENTARY SCHOOLS. Three hours credit. First semester. Methods and materials for grades 1, 2, 3, and 4. Logical development in teaching; rote song; songs of the seasons; staff notation; voice training; scales without technical explanation; scales with technical explanation; use of paper keyboards; ear training; rhythm tapping; reading at sight; games and plays. Hall.

2.—TEACHING OF MUSIC IN ELEMENTARY SCHOOLS. Three hours credit. Second semester. Methods and materials for grades 5, 6, 7, and 8. Two- and three-part songs; vocal development; ear training; sight singing; dictation; music appreciation; games and plays. Hall.

3.—TEACHING OF MUSIC IN JUNIOR AND SENIOR HIGH-SCHOOLS. Two hours credit. First semester. Methods and materials for the junior high school and the first year of the senior high school. Three- and four-part songs; treatment of unchanged and changed voices; sight singing; ear training; melodic and rhythmic dictation; simple modulations; the bass voice. Downing.

4.—TEACHING OF MUSIC IN THE HIGH SCHOOL. Two hours credit. Second semester. High-school music from artistic and scientific viewpoints; choral singing (including sight singing); girls' and boys' glee clubs; high-school orchestra; classes in history and theory (harmony, ear training, analysis). Outlines for courses of study in logical development of teaching the simpler forms of musical theory, suitable for use in high schools. Downing.

1.—PRACTICE TEACHING. One hour credit. First semester. Actual teaching in all the grades of the city schools of Lawrence. Hall.

2.—PRACTICE TEACHING. One hour credit. Second semester. A continuation of practice teaching 1; also observation in the junior and senior high schools. Hall.

1 and 2.—CONDUCTING. One hour credit. Throughout the year. A course in the proper methods to be used in conducting choruses and orchestras, with actual experience in the work. Kendrie.

1 and 2.—SUPERVISOR'S VIOLIN. One hour credit. Throughout the year. In class. Proper methods of bowing and fingering; practical experience in the use of the violin as an orchestral instrument; materials used by the high-school orchestra. Kendrie.

RECITALS.

Professor: SKILTON.

Recitals 1 to 8, required of all music students in the degree or four-year certificate courses.

Recitals 1 to 4, required of all public-school music students.

RECITALS 1 to 8. One hour credit. Both semesters. Attendance at all private and public student recitals, faculty concerts, University Concert Course concerts, and such other concerts as the dean may announce. Student must turn in his notebook at the end of each semester. Skilton.

VIOLIN.

Professor: KENDRIE.

1 and 2.—KREUTZER'S FORTY STUDIES. Five hours credit. Both semesters. Scale Studies by Alard or Schradieck. Selections from Sevcik's

Four Thousand Bow Studies. Solos by Singelee, Alard, Leonard, Bohm, Daube, and others. Duets by Mazas and Dancla. Concertos by Rode and De Beriot.

3 and 4.—KREUTZER'S FORTY STUDIES. Five hours credit. Both semesters. Fiorillo's Thirty-six Studies. Scale Studies by Alard or Schradieck. Selections from Sevcik's Four Thousand Bow Studies. Sonatas, concertos, selections from compositions of Bach, Handel, Beethoven, De Beriot, Ernst, Vieuxtemps, Viotti, Wieniawski, Brahms, Leonard, Sarasate, Hubay, and Kreisler. Ensemble playing.

5 and 6.—KREUTZER'S FORTY STUDIES. Six hours credit. Both semesters. Fiorillo's Thirty-six Studies. Selections from Sevcik's Technic Studies. Sonatas of Bach, Handel, Beethoven, Rubinstein, Franck, Grieg, and Sjogren. Selections for compositions of Wieniawski, Leonard, Hubay, Sarasate, Bazzini, Saint-Saëns, Vieuxtemps, Zarzycki, Natchez, Schubert, Schumann, and Chopin. Violin duets. Standard concertos. Ensemble playing.

7 and 8.—FIORILLO'S THIRTY-SIX STUDIES. Seven hours credit. Both semesters. Rode's Twenty-four Studies. Selections from Sevcik's Technic Studies. Sonatas for violin alone, by Bach. Compositions of Handel, Tartini, Ernst, Paganini, Wieniawski, Vieuxtemps, and others. Standard concertos. Selections from compositions of American composers, including study of trios, quartets, and orchestral compositions. Other ensemble work.

FOR CREDIT TOWARD THE MASTER OF ARTS DEGREE.

109 and 110.—VIOLIN. Five or seven hours credit. Each semester by appointment. The study of reportoire for concert work especially. The work will include some, but not necessarily all of the following: Concertos by Mendelssohn, Vieuxtemps, Saint-Saëns, Tschaikowsky, Beethoven, Lalo. Also some of the smaller forms of composition requiring a facile technic. Effort will be made to prepare the student for concert work, rather than for teaching. Open to those who have completed the violin courses, 1 to 8, inclusive, in the School of Fine Arts, or in a school of equal rank. Applicants for admission must play before the fine arts faculty not less than three concert numbers, including a movement of a sonata or concerto, and give a public recital on completion of the course.
Kendrie.

FOR CREDIT TOWARD THE MASTER OF MUSIC DEGREE.

157 and 158.—VIOLIN. Seven hours credit. Each semester, by appointment. Paganini caprices, sonatas by Bach, concertos by Beethoven, Saint-Saëns, Lalo, Tschaikowsky and others. Open only to violin graduates of the School of Fine Arts or of other schools requiring a corresponding amount of work. Applicants for admission must play before the fine arts faculty not less than three concert numbers, including a movement of a sonata or concerto, and give a public recital on completion of the course.
Kendrie.

VOCAL CULTURE.

Professors: BUTLER, DOWNING, SMITH.
Associate Professor: LAZELLE.
Instructor: HAZELTINE.

1 and 2.—TONE PLACING AND BREATH CONTROL. Three hours credit. Both semesters. Dictation exercises for the special needs of the individual voice. Sustained tones. Breath control and the true legato. The study of conditions necessary for the poising of the voice. The Italian vowels. Technical exercises selected from Marchesi, Lamperti, Sieber, Abt, Panofka, Garcia, and Shakspere. Simple English and Italian songs.
Butler, Downing, Smith, Lazelle, Haseltine.

3 and 4.—Voice Extension. Three hours credit. Both semesters. Development of tone. Breath control. Exercises for flexibility from Lamperti, Nava, Concone, Vannini, Bordogni, Sieber, and Shakspere. English and Italian songs. German lieder. Church solos.
Butler, Downing, Smith, Lazelle, Haseltine.

5 and 6.—Study of Tone Color. Four hours credit. Both semesters. Exercises for flexibility, continued. Embellishments. Exercises from Concone, Panofka, Marchesi, Garcia, Panseron, and Rossini. German lieder, English oratorio, and church solos.
Butler, Downing, Smith, Lazelle.

7 and 8.—Style and Interpretation. Five hours credit. Both semesters. A comparative study. Exercises for bravura singing from Marchesi. Flexibility and finishing exercises from the masterpieces of vocalization. Stage deportment. Selections from opera and oratorio. Modern Italian, German, and French song literature.
Butler, Downing, Smith, Lazelle.

9.—Vocal Seminar. One hour credit. First semester. An intensive study of the classic Italian song literature: Bononcini, Cavalli, Caldara, Pergolese, Paisiello, Monteverde, Scarlatti, Carissimi, Lotti, Gluck, Handel, etc. The German romantic school; Schubert, Schumann and Franz; with especial attention to correct diction and interpretation. Open to juniors, seniors and advanced special students. Butler.

10.—Vocal Seminar. One hour credit. Second semester. A continuation of 9. Modern French, German and Russian song literature. Representative American song composers; Chadwick, Beach, Foote, Rogers, Carpenter, Nevin, Coombs, Homer, Gilbert, Hadley, etc.
Butler.

FOR CREDIT TOWARD THE MASTER OF ARTS DEGREE.

105 and 106.—Opera and Oratorio. Five or seven hours credit. By appointment. Practical and critical study of the development of opera and oratorio, the practical work consisting of one hour a week vocal study of selected numbers; the theoretical work of two hours' critical examination of complete works. Open to those who have completed the vocal courses 1 to 8, inclusive, in the School of Fine Arts, or in a school of equal rank. Applicants for admission must sing before the music faculty not less than three concert numbers, including an aria, and give a public recital on completion of the course. Butler, Downing, Smith.

FOR CREDIT TOWARD THE MASTER OF MUSIC DEGREE.

155 and 156.—Voice. Five or seven hours credit. Each semester, by appointment. Modern French, Russian, German, Italian, English, and American song literature; the more difficult operatic and oratorio airs; a singing knowledge of at least one complete opera rôle, and one standard oratorio rôle. Open only to vocal graduates of the School of Fine Arts, or of other schools requiring a corresponding amount of work. Applicants for admission must sing before the fine arts faculty not less than three concert numbers, including an aria, and give a public recital on completion of the course. Butler, Downing, Smith.

ART.

All art courses are primarily for students in the School of Fine Arts. Students in other schools of the University may take art work for credit toward their respective degrees as follows:

Art Credits in the College.

Drawing 1 and 2 and Design 3 and 4 (with two hours credit for each course) are open to freshmen and sophomores in the College.

The following art courses are open to College juniors and seniors as a part of their professional credit: Drawing 11, 12; Painting 1, 2; History of Art 1, 2, 51, 52, 53, 54; Design 5, 6.

Not to exceed fifteen hours of professional credit may be offered toward the degree Bachelor of Arts.

Art Credits in the School of Engineering.

Drawing 1, 2, 11 and 12 (with three hours credit in each course) are open to engineering students.

Art Credits in the School of Education.

Candidates for the degree B. S. in Education may, under Option I, offer a minor in art of twenty hours. Under Option II, a major in art of thirty hours or a minor of twenty hours may be offered.

Art Credits in the Graduate School.

Painting 111 and 112 may be offered toward the Master of Arts degree under conditions stated in the description of the course.

CLAY MODELING.

Instructor: ———.

1.—Clay Modeling (Pottery). Two hours credit. First semester. Modeling of bowls, vase forms, tiles, etc. Study of glazing and firing.

2.—Clay Modeling (Pottery). Two hours credit. Second semester. Continuation of 1.

51.—Clay Modeling. Two hours credit. First semester. Exercises in relief from casts, flowers and other nature form, followed by original designs.

52.—Clay Modeling. Two hours credit. Second semester. Continuation of 51.

55.—Clay Modeling. Two hours credit. First semester. Work in relief and in the round.

56.—Clay Modeling. Two hours credit. Second semester. Continuation of 55.

DESIGN.

Professor: Ketcham.

3.—Design. Three hours credit. First semester. Training in the underlying principles of design, together with their application to surface patterns, borders and other decorative purposes. Study in color theory and lettering. Ketcham.

4.—Design. Three hours credit. Second semester. Continuation of 3. Ketcham.

5.—Design. Three hours credit. First semester. The application of design to the crafts, such as tiles, embroidery, stenciling, block printing, etc. The study of textile designing. Lettering is continued. Ketcham.

6.—Design. Three hours credit. Second semester. Continuation of 5. Ketcham.

53.—Design. Three hours credit. First semester. Designs for application in leather, tooling, clay modeling, jewelry, etc. Problems for printed textiles, with especial reference to processes of modern manufacture. Ketcham.

54.—Design. Three hours credit. Second semester. Continuation of 53. Ketcham.

55.—DESIGN. Three hours credit. First semester. Students are allowed to specialize in whatever lines of design, previously studied, they wish to follow. Particular attention is given to textile designing. Ketcham.

56.—DESIGN. Three hours credit. Second semester. Continuation of 55. Ketcham.

DRAWING.

Professors: GRIFFITH, FRAZIER, BROWNE.
Instructor: SMITH.

1. DRAWING (ANTIQUE). Four hours credit. First semester. Elementary drawing in charcoal from the cast. The head. Frazier.

2.—DRAWING (ANTIQUE). Four hours credit. Second semester. Advanced drawing from the cast. The full figure. Frazier.

3.—DRAWING (CONSTRUCTIVE). Two hours credit. First semester. Free-hand perspective in pencil.

4.—DRAWING (CONSTRUCTIVE). Two hours credit. Second semester. Charcoal drawing from the portrait model.

5.—DRAWING (PERSPECTIVE). One hour credit. First semester. Linear perspective. Special attention is given to graphic methods that are of practical use in laying out a drawing. Griffith.

6.—DRAWING (ANATOMY). One hour credit. Second semester. A study of the construction of the human frame and its muscles as it relates to artistic training. Smith.

7.—DRAWING (COMPOSITION). Two hours credit. First semester. The study of line and mass arrangement in pictorial and decorative composition. Assigned problems to be worked in black and white. Frazier.

8.—DRAWING (COMPOSITION). Two hours credit. Second semester. Continuation of 7. Frazier.

9.—DRAWING (SKETCH). One hour credit. First semester. This course enables the student to observe quickly, and dwells on the character of line, the massing of light and shade; a rapid blocking out of the main idea of the subject. Browne.

10.—DRAWING (SKETCH). One hour credit. Second semester. Continuation of 9. Browne.

11.—DRAWING (LIFE). Five hours credit. First semester. Drawing from the living model in charcoal. This class gives the student an opportunity to study the human figure, as offered in all regular art schools. Browne.

12.—DRAWING (LIFE). Five hours credit. Second semester. Continuation of 11. Browne.

13.—DRAWING (SKETCH). One hour credit. First semester. Continuation of 10. Browne.

14.—DRAWING (SKETCH). One hour credit. Second semester. Continuation of 13. Browne.

15.—DRAWING (NATURE DRAWING AND MUSEUM STUDY). One hour credit. First semester. Analysis of flower and various plant forms to obtain motifs for design. Study of insects, butterflies and birds in the Dyche Museum of Natural History, and of textiles and other forms of decorative art found in the Thayer Art Memorial Collection.

16.—DRAWING (NATURE DRAWING AND MUSEUM STUDY). One hour credit. Second semester. Continuation of 15.

51.—DRAWING (LIFE). Five hours credit. First semester. Continuation of 12. Browne.

52.—DRAWING (LIFE). Five hours credit. Second semester. Continuation of 51. Browne.

53.—DRAWING (SKETCH). One hour credit. First semester. Continuation of 14. Browne.

54.—DRAWING (SKETCH). One hour credit. Second semester. Continuation of 53. Browne.

55.—DRAWING (LIFE). Five hours credit. First semester. Continuation of 52. Browne.

56.—DRAWING (LIFE). Five hours credit. Second semester. Continuation of 55. Browne.

57.—DRAWING (SKETCH). One hour credit. First semester. Continuation of 54. Browne.

58.—DRAWING (SKETCH). One hour credit. Second semester. Continuation of 57. Browne.

HANDCRAFTS.

Instructor: ———.

1.—HANDCRAFTS. One hour credit. First semester. Application of design to basketry, embroidery, block printing, stenciling, batik, etc.

2.—HANDCRAFTS. One hour credit. Second semester. Continuation of 1.

3.—HANDCRAFTS (BOOKBINDING). Two hours credit. First semester. All the process of "forwarding" a book, including the taking apart of the book, mending, sewing, backing, and covering. The simple "tape-sewn" bindings are followed by the more difficult bindings in leather. Ketcham.

4.—HANDCRAFTS (BOOKBINDING). Two hours credit. Second semester. Continuation of 3. Ketcham.

51.—HANDCRAFTS. One hour credit. First semester. Continuation of 2.

52.—HANDCRAFTS. One hour credit. Second semester. Continuation of 51.

53.—HANDCRAFTS. One hour credit. First semester. Continuation of 52.

54.—HANDCRAFTS. One hour credit. Second semester. Continuation of 53.

61.—HANDCRAFTS (BOOKBINDING). Two hours credit. First semester. Continuation of 4. Processes of "finishing" are taken up, including the designing and tooling of leather covers. Inlay work and gold tooling are employed as the student becomes proficient. Ketcham.

62.—HANDCRAFTS (BOOKBINDING). Two hours credit. Second semester. Continuation of 61. Ketcham.

63.—HANDCRAFTS (BOOKBINDING). Two hours credit. First semester. Continuation of 62. Ketcham.

64.—HANDCRAFTS (BOOKBINDING). Two hours credit. Second semester. Continuation of 63. Ketcham.

65.—HANDCRAFTS (METAL WORK AND JEWELRY). One hour credit. First semester. The various processes of metal manipulation, in making copper and brass trays, bowls, etc.; making chains, rings, brooches, etc., in silver; also setting precious stones and enameling.

66.—HANDCRAFTS (METAL WORK AND JEWELRY). One hour credit. Second semester. Continuation of 65.

67.—HANDCRAFTS (METAL WORK AND JEWELRY). One hour credit. First semester. Continuation of 66.

68.—HANDCRAFTS (METAL WORK AND JEWELRY). One hour credit. Second semester. Continuation of 67.

HISTORY OF ART.

Professors: GRIFFITH, BROWNE.

1.—HISTORY OF ART (ORNAMENT). One hour credit. First semester. Lectures upon the typical features of the principal historic styles to acquaint students with the best examples of ancient and modern art, and to contribute to creative ability. Research work is also done by the students in this course, and papers written from time to time.

2.—HISTORY OF ART (ORNAMENT). One hour credit. Second semester. Continuation of 1.

51.—HISTORY OF ART (MODERN PAINTING). Two hours credit. First semester. This course deals with the history of modern European painting from the eighteenth century to the present day. Browne.

52.—HISTORY OF ART (MODERN PAINTING). Two hours credit. Second semester. Continuation of 51. Browne.

53.—HISORY OF ART (AMERICAN PAINTING). Two hours credit. First semester. From the beginning of American painting to the present day. Lectures illustrated with original painting, lantern slides and the reflectograph. Browne.

54.—HISTORY OF ART (AMERICAN PAINTING). Two hours credit. Second semester. Continuation of 53. Browne.

PAINTING.

Professors: FRAZIER, BROWNE.
Instructor: SMITH.

1.—PAINTING (STILL LIFE). Five hours credit. First semester. Painting in oil from still life. Frazier.

2.—PAINTING (STILL LIFE). Five hours credit. Second semester. Continuation of 1. Frazier.

3.—PAINTING (COMPOSITION). Two hours credit. First semester. The study of color arrangement in pictorial and decorative composition. Assigned problems to be worked in color. Frazier.

4.—PAINTING (COMPOSITION). Two hours credit. Second semester. Continuation of 3. Frazier.

51.—PAINTING (PORTRAIT). Five hours credit. First semester. Painting in oil from the portrait model. Frazier.

52.—PAINTING (PORTRAIT). Five hours credit. Second semester. Continuation of 51. Frazier.

53.—PAINTING (ADVANCED COMPOSITION). Two hours credit. First semester. Special problems assigned. Frazier.

54.—PAINTING (ADVANCED COMPOSITION). Two hours credit. Second semester. Continuation of 53. Frazier.

55.—PAINTING (LIFE). Five hours credit. First semester. Painting in oil from nude model. Browne.

56.—PAINTING (LIFE). Five hours credit. Second semester. Painting in oil from nude model. Browne.

57.—PAINTING (ADVANCED COMPOSITION). Two hours credit. First semester. Special problems assigned. Frazier.

58.—PAINTING (ADVANCED COMPOSITION). Two hours credit. Second semester. Continuation of 57. Frazier.

FOR CREDIT TOWARD THE MASTER OF ARTS DEGREE.

111 and 112.—PAINTING. Five hours credit. Each semester. Advanced painting, calling for the completion of an original painting containing not less than three figures. Shortest dimensions of the canvas to be not less than three feet. Open to graduates of the School of Fine Arts or of another school of equal standing. Frazier, Browne.

PUBLIC-SCHOOL ART METHODS.

Professor: FRAZIER.

1.—HIGH-SCHOOL ART METHODS. Two hours credit. First semester. A general survey of the problems of art instruction in the public schools. High-school drawing and methods of teaching. Frazier.

2.—HIGH-SCHOOL ART METHODS. Two hours credit. Second semester. High-school design, pure and applied. Ketcham.

3.—GRADE-SCHOOL ART METHODS. Two hours credit. First semester. Art appreciation in the grade schools. Materials and methods of teaching. Observation in the Lawrence city schools. Browne.

4.—GRADE-SCHOOL ART METHODS. Two hours credit. Second semester. Study of art instruction courses in the grade schools. Selection and organization of materials. Practice teaching in the Oread High School. Frazier.

TECHNIC OF COMMERCIAL ART.

Instructor: SMITH.

51.—TECHNIC OF COMMERCIAL ART. One hour credit. First semester. Practical problems in the various mediums used in the commercial art world.

52.—TECHNIC OF COMMERCIAL ART. One hour credit. Second semester. Continuation of 51.

53.—TECHNIC OF COMMERCIAL ART. One hour credit. First semester. Drawings for illustrative and advertising purposes. Methods of reproducing drawings. Line etching, half tone and color process.

54.—TECHNIC OF COMMERCIAL ART. One hour credit. Second semester. Continuation of 53.

Geology.

Professor: MOORE (Head of Department).
Associate Professors: *HAYNES, POSEY.
Assistant Professors: TODD, FLEENER, KNAPPEN, SCHOEWE.

GENERAL STATEMENT. The Department of Geology offers training in a number of divisions of earth science, which, while more or less closely related to one another, are nevertheless to a certain extent independent sciences. These may be indicated conveniently as follows: (1) General geology and geography; (2) historical geology and paleontology; (3) economic geology; and (4) mineralogy and petrology. Courses in the department may be grouped with reference to the following classes of students: (*A*) Those wishing to acquire a knowledge of general geology as a part of a liberal education; (*B*) those expecting to engage in professional work along some geologic line, (*a*) as a petroleum geologist, or (*b*) in geology applied to mining; (*C*) those who wish to pursue major work in geography as a preparation for teaching, or as an aid to business or foreign trade service; and (*D*) those who feel the need of a geologic or geographic knowledge as an aid to the facts of other sciences or branches of learning.

ADVICE AS TO COURSES. It is desirable that every student decide as early as possible, and at least before his junior year, the particular field of earth science in which he wishes to specialize. Students who desire to follow any of the lines of training previously mentioned may be guided by the following outlines:

A. General Geology: 1, 2, 31, 50, 60, 61, 71, 72 or 73.

* Absent on leave, 1920-'21.

B. (*a*) *Petroleum Geology:* 1, 2, 31, 50, 51, 60, 61, 71, 72; Math. 3*a* or 3*b*; Civil Engineering 1, 2; Engineering Drawing 1; Chemistry 3 advised.

(*b*) *Mining Geology:* 1, 2, 31, 50, 51, 60, 71, 72, 73, 80, 82; Mining Engineering 53, 68; and supporting courses as in *B* (*a*) above.

C. Geography: (*a*) *Teaching:* 1, 2, 3, 30, 50, 53, 54, 55, 56, 57, 58, 70; Economics 4, 90; Astronomy 10 advised.

(*b*) *Foreign Trade:* 1, 3, 53, 54, 55, 56, 57, 70; Economics 1, 2, 4, 69; Political Science 87 and foreign language advised.

D. Geology or Geography as a Minor: 1, 2 or 3, and additional courses related to the major subject; for chemistry and physics, 31 and 70; for biological sciences, 60, 61; for economics and commerce, 3, 53, 56, 57, 70.

EQUIPMENT. The Department of Geology is located in Haworth Hall, a three-story building with laboratories, museums, lecture rooms, and library. The laboratories contain abundant material for class work in the study of minerals, rocks and topographic and geologic maps. A very extensive collection of minerals and rocks arranged in systematic order, and a large collection of invertebrate fossils, are exhibited in the department museum. In the classrooms are cases with topographic and geologic wall maps, and models of topographic forms, together with a reflectoscope and lantern slides and reference collections of rocks, minerals and fossils. The library contains all the principal works on geology and mining, including their various subdivisions, sets of Federal, state and foreign geologic reports, and American and foreign geologic periodicals.

PREREQUISITES. Courses in Geology 1, 2 or 3 are prerequisite for all subsequent courses in the College excepting 30, 31 and 70. Students wishing to specialize in geology should take as much chemistry as their courses will permit, and for advanced work in historical geology and paleontology should take special work in zoölogy. Courses in other departments which are prerequisite to advanced courses in geology are indicated in the descriptions of courses and should be carefully noted in planning outline work. Group requirements for freshmen-sophomores may be satisfied by geology courses 1, and either 2 or 3.

GENERAL GEOLOGY AND GEOGRAPHY.

1.—ELEMENTARY PHYSICAL GEOLOGY. Three hours credit. Each semester. Lectures, laboratory, and field trips. A study of the materials and surface features of the earth, and the agencies producing and changing them. Posey, Fleener, Schoewe.

2.—ELEMENTARY HISTORICAL GEOLOGY. Two hours credit. Each semester. Lectures, laboratory, and field trips. A survey of the more important events in the past history of the earth. Prerequisite, Geology 1. Moore, Fleener, Schoewe.

3.—PRINCIPLES OF GEOGRAPHY. Two hours credit. Each semester. Lectures and laboratory. A study of the earth with reference to its planetary relations and to the effects of its physical features upon life, especially human life. Prerequisite, Geology 1. Posey.

4.—FIELD GEOLOGY. Two hours credit. Second semester. Field work and reports on the geology of areas near Lawrence and field problems in geology. Must be preceded or accompanied by Geology 1 and 2. Open only to engineering students. Knappen, Fleener.

50.—GEOLOGIC PROCESSES. Five hours credit. First semester. A critical investigation of geologic agencies and the results of their work. Prerequisites, Geology 1, 2, 31, and Physics 3*a* and 4*a*. Haynes, Schoewe.

51.—Field Geology. Two hours credit. First semester. A course in methods of field work, illustrated by practice on areas near Lawrence. Prerequisites, Geology 1, 2, Civil Engineering 1, and must be accompanied or preceded by Geology 50. Engineering Drawing 1 very desirable. Haynes, Knappen, Fleener.

52.—Field Geology. Five hours credit. Summer session. A five week's field course devoted to the study of the geology and physiography of parts of Kansas and Colorado, or other selected area. Prerequisites, Geology 1, 2. Registration only after consultation with the department.

53.—World Geography. Three hours credit. Second semester. A study of the natural resources of the world and of the geographic factors influencing their utilization. Posey.

54.—Elementary Meteorology. Two hours credit. First semester. A brief course on the causes and effects of atmospheric conditions, including temperature, winds, humidity, clouds, rain, and storms. Prerequisites, Geology 1, 3. (Not given in 1921-'22.) Posey.

55.—Climates. Two hours credit. First semester. A study of climates, the natural climatic provinces of the world, and climatic influences on distribution of population, occupations, customs, and diseases. Prerequisites, Geology 1, 3. (Not given in 1922-'23.) Posey.

56.—Geography of North America. Three hours credit. First semester. The physical features of the continent, its climates and natural resources; the influence of geographic conditions in the development and life of the different countries. Prerequisites, Geology 1, 3. Posey.

57.—Geography of South America. Three hours credit. Second semester. The physical features, climates and resources of the continent; their effects on the development and prospects of the different countries; geographic factors affecting trade between the United States and South America. Prerequisites, Geology 1, 3. Posey.

58.—Geology and Geography of Kansas. Two hours credit. Second semester. Lectures and library work. A careful study of the geology and physical geography of Kansas, including both economic and paleontologic studies. Prerequisites, Geology 1, 2. Posey.

100.—Geologic Methods. Five hours credit. First semester. An advanced course in methods of geologic investigation mapping, field and office studies, and preparation of geological reports. Prerequisites, Geology 50 and 71. Moore, Haynes.

101.—Field Geology. Special work in some selected area under the supervision of the faculty of the Department of Geology.

102.—Research in General Geology. Special work on a research problem under the supervision of the faculty of the department.

110-114.—Seminar. Study of current developments and geologic problems in the field of the geologist. One or two hours credit. May be taken several semesters for credit.

HISTORICAL GEOLOGY AND PALEONTOLOGY.

60.—Historical Geology. Five hours credit. Second semester. A study of the geologic history of the earth, the evolution and development of the continents, stratigraphy, and the history of plant and animal life from the earliest known beginnings to the present. Prerequisites, Geology 1, 2, 51. Moore.

61.—Invertebrate Paleontology. Five hours credit. First semester. A study of the introduction and succession of fossil faunas, their composition, and geographic distribution. Practical exercise in the identification of faunas of different geologic ages is given. A classroom and laboratory course. Prerequisites, Geology 1, 2. Moore.

162.—Stratigraphic Geology. Five hours credit. Second semester. An advanced course in the study of the stratified rocks and their correlation, with special reference to the work of the petroleum geologist. Prerequisites, Geology 61, 62, or equivalents. Moore.

163.—Advanced Invertebrate Paleontology. Five hours credit. A continuation of course 61, including the study of representative fossil faunas, their distribution and method of correlation. Prerequisite, Geology 61 or its equivalent. Moore.

164.—Research in Invertebrate Paleontology. Five to ten hours credit. Prerequisite, Geology 61 or equivalent. Moore.

ECONOMIC GEOLOGY.

70.—Mineral Resources of the United States. Three hours credit. Second semester. A survey of these resources; their distribution, present and future production; manner of occurrence; method of production and economic uses. Intended for students not majoring in geology. Knappen.

71.—Structural and Dynamic Geology. Three hours credit. First semester. A careful study of geological dynamics and results of dynamic actions, particularly on stratified rocks. Prerequisites, Geology 1, 2, and must be preceded or accompanied by Geology 50. Haynes.

72.—Economic Geology. *Oil, Gas and Other Nonmetals.* Five hours credit. First semester. A detailed study of the geology and economic importance of oil and gas fields, coal and other nonmetals, and conditions affecting their development. Prerequisites, Geology 50, 61. Haynes, Knappen.

73.—Economic Geology. *Ore Deposits.* Five hours credit. Second semester. A general study of the metallic ores, including their nature, origin, amount and geographic and geologic distribution. Prerequisites, Geology 50. Knappen.

174.—Geology and Technology of the Metals I. Five hours credit. First semester. This course and course 175 are intended to constitute a year's study of the geology of the metals. An extensive study of ore deposits will be made in this course, and the geology of many of the important metal-mining camps will be studied. Prerequisite, Geology 71, 73, or equivalents. Haynes, Knappen.

175.—Geology and Technology of the Metals II. Five hours credit. Prerequisite, Geology 174. Haynes, Knappen.

176.—Coal. Five hours credit. First semester. A study of the coal fields of the world, including their geology, geography and commerce, and approved methods of field investigation. Prerequisites, Geology 71, 72, or equivalents. Haynes, Knappen.

177.—Petroleum Fields of the World I. *North America.* Five hours credit. First semester. An intensive study of the oil-producing districts of this continent with special reference to the surface and structural geology and occurrence of oil. Prerequisites, Geology 71, 72, or equivalents. Moore, Haynes, Knappen.

178.—Petroleum Fields of the World II. *Other Continents.* Five hours credit. Second semester. A continuation of 177, considering the important oil fields of the world outside of North America. Prerequisites, Geology 71, 72, or equivalents. Moore, Haynes, Knappen.

179.—Principles of Subsurface Geology. Three hours credit. Second semester. Methods of determining subsurface conditions. The correlation of well logs, petrologic and paleontologic examination of drill cuttings, and graphic presentation of data. Water problems and their treatment. Prerequisites, Geology 71, 72. Moore, Haynes, Knappen.

270.—Research in Economic Geology. Special work on a problem under the supervision of the faculty of the department.

MINERALOGY AND PETROLOGY.

30.—Common Rocks and Minerals. Two hours credit. Second semester. A short course designed to give the student familiarity with the common rocks and minerals. Practical identification is based chiefly on evident physical characters. Not intended for major students. Prerequisite, Elementary Chemistry. Schoewe.

31.—Mineralogy. Five hours credit. Each semester. A brief course in crystallography and descriptive and determinative mineralogy, including blowpipe analysis. Prerequisite, Chemistry 1 or 2. Schoewe.

132.—Advanced Mineralogy. Five hours credit. Schoewe.

133.—Research in Mineralogy. Credit to be arranged. Schoewe.

80.—Elements of Petrology. Two hours credit. Second semester. Lithology: structure, texture, mineral and chemical composition, and the manner of formation and occurrence of igneous, sedimentary and metamorphic rocks. Prerequisites, Geology 1, 2, 31. Schoewe.

81.—Petrography. Three hours credit. Second semester. This course consists of training in the methods of petrographic study and microscopic examination of minerals and principal rock types. Prerequisites, Geology 1, 2, 31. Schoewe.

182.—Advanced Petrology. Five hours credit. Schoewe.

183.—Research in Petrology. Credit to be arranged. Schoewe.

Germanic Languages and Literatures.

Professors: Engel, Thurnau (Chairman of Department).
Associate Professors: Kruse, Sturtevant, Corbin.

Equipment. The German Department has an excellent stereopticon, a balopticon, and over 1,000 stereopticon slides, illustrating scenery, costumes, and biography; an increasing number of excellent photographs and prints in frames; a complete set of German wall maps showing the various separate states, and a few busts. The department has a Columbia graphaphone and is accumulating a series of speech records for illustration of differing German pronunciation. There are 5,485 volumes in the library of the German Department, and twenty-one philological and literary journals are received.

The department has also a valuable collection of 3,000 unbound dissertations and school programs, covering all fields of Germanistic scholarship. With the present library and this acquisition of special studies the German Department is prepared to encourage graduate study in Germanic languages at the University of Kansas.

Advice as to Choice of Courses. Students who plan to major in German should consult with the department before the close of the sophomore year for special guidance in their subsequent work in German and for advice as to courses to be taken in other departments. Courses 1 to 13 are open to all students of the College. Courses 50 to 59 are open to both undergraduates in the College and to graduate students. Courses 1, 2, 3, must be taken in order. Students majoring in German must elect composition, course 10, which should be taken along with course 5 as a preparation for subsequent courses 6 to 13. From these at least one more reading course must be taken in preparation for the major group, courses 50 to 57.

1.—Elementary German—Essentials of Grammar. Five hours credit. Both semesters. Practice in speaking and writing German.
Engel, Thurnau, Corbin, Sturtevant.

1A.—Elementary German—Essentials of Grammar. Three hours. First semester. For fine arts students and others desiring merely a

knowledge of the most necessary facts of the grammar, pronunciation and the simplest reading. Credit for this course given only upon satisfactory completion of the work of the second semester.
Thurnau, Sturtevant.

1A—*Continued.* Three hours. Second semester. May be followed by course 2. Thurnau, Sturtevant.

2.—German Reading and Grammar. Five hours credit. Both semesters. Selected texts from modern writers of short stories, with composition and conversation based upon them. Review of grammar topics, with exercises. Engel, Thurnau, Corbin, Sturtevant.

3A.—Intermediate German. Five hours credit. Both semesters. Selected narrative prose texts. Composition and conversation.
Thurnau, Sturtevant.

3B.—Scientific German. Five hours credit. Second semester. A thorough review of grammar, followed by a scientific German reader. Intended for students majoring in Science, and may not be counted toward a major in German. Prerequisite, ten hours of College German.
Engel.

4A.—German Classics. Three hours credit. Both semesters. Selected works from Lessing, Schiller, Goethe. Kruse.

4B.—Scientific German. Three hours credit. Second semester. Reading of scientific German texts in class and assigned readings on selected topics outside of class. For students in engineering and medicine and those majoring in science, and may not be counted toward a major in German. Its aim is to develop the rapid reading of more advanced scientific German in special fields. A continuation of course No. 3 B, but open to students who have had 3A. Engel.

4C.—Elementary German Composition. Two hours credit. Both semesters. Students planning to major in German are required to take this course with 4A. Thurnau, Kruse.

5.—Schiller. Three hours credit. First semester. Students majoring in German should elect intermediate German composition, course 10, in connection with this course. Engel.

6.—Iphigenie and Nathan der Weise. Three hours credit. Second semester. Thurnau, Corbin.

6A.—Schiller's Braut von Messina. Two hours credit. By correspondence only.

7.—Modern Narrative Prose. Two hours credit. First semester. Selections from the best-known writers of the nineteenth and twentieth centuries. Prerequisite, German 4. Thurnau.

8.—Modern Dramatic Prose. Two hours credit. Second semester. Reading of representative plays of the best-known modern dramatists, Ludwig, Fulda, Hauptmann, Sudermann, Wildenbruch. Open to students who have had German 4. Thurnau.

9.—Historical Prose. Three hours credit. Second semester. Introductory reading of Schönfeld's German Historical Prose, followed by more rapid and extensive reading in selected historical writings. Prerequisite, German 4. (Not given in 1921-'22. Kruse.

10.—Intermediate German Composition. Two hours credit. Both semesters. Required of all students majoring in German. Thurnau.

11.—Advanced German Composition. Two hours credit. Second semester. For those students who expect to teach German, but open to all who have had course 10. Engel.

12.—German Oral Composition. Two hours credit. Both semesters. The aim of this course is to aid students in acquiring and using a practical conversational vocabulary. Prerequisite, course 4.
Engel, Thurnau.

13.—Lessing's Laocoön and Dramaturgie. Three hours credit. Second semester. Selected portions of these works, with supplementary reading and discussion of the principles of art and the drama. (Not given in 1921-'22.) Corbin.

50.—Goethe's Faust. (Parts I and II.) Three hours credit. Second semester. Corbin.

51.—History of German Literature. Three hours credit. First semester. The history of German literature from the earliest times to the present. Lectures in connection with Thomas' History and Anthology. Thurnau.

52.—History of German Prose Fiction. Three hours credit. Second semester. Lectures and selected readings. Special emphasis on the growth of realism in the nineteenth century. Thurnau.

53.—The Lyrics of Goethe. Two hours credit. First semester. Study of the lyrics in connection with the life and letters of the author. Corbin.

54.—The Realistic Drama. Three hours credit. First semester. A brief consideration of the development of the German drama, followed by a more intensive study of the dramas of Hebbel, Ludwig, and Anzengruber. Lectures, readings, and reports. Kruse.

55.—The Naturalistic Drama. Two hours credit. Second semester. Hauptmann, Sudermann, and Halbe. Lectures, readings, and reports. Kruse.

56.—The Romantic Drama. Two hours credit. Second semester. Heinrich von Kleist, Grillparzer, and Wagner. Lectures, readings, and reports. This course alternates with course 55. Kruse.

57.—Storm and Stress. Three hours credit. Second semester, at 9:30. Special study of the writings of Goethe and Schiller in this period, with lectures and library reading on the lesser writers and the literary movement as a whole. Engel.

58.—Teachers' Course in German. Three hours credit. Second semester. Advanced grammar with theory of language teaching. Elementary practical phonetics. Intended for those who expect to teach German in high schools. Engel.

58*a*.—Senior Teaching in German. Both semesters, hours to be arranged. Engel.

MODERN SCANDINAVIAN.

59.—Modern Swedish I. Three hours credit. First semester, by appointment. A study of the Swedish language. Elmquist's Swedish Grammar. Sturtevant.

60.—Modern Swedish II. Three hours credit. Second semester, by appointment. Lectures on Swedish literature. Tegnér's Frithiofssaga, and other works. Sturtevant.

61.—Modern Norwegian I. Three hours credit. First semester, by appointment. A study of the Norwegian language. Groth's Dano-Norwegian Grammar; Holvik's Beginner's Book in Norse. Sturtevant.

62.—Modern Norwegian II. Three hours credit. Second semester, by appointment. Lectures on Norwegian literature. Ibsen's *Samfundets Stötter* and *Peer Gynt*. Sturtevant.

Swedish and Norwegian are given in alternate years, but either may be given in successive years, if occasion requires.

COURSES FOR GRADUATES.

100.—History of the German Language. Two hours credit. Second semester, by appointment. Introduction to philological study. Wright's History of the German Languages, vol. I, and supplementary reading. Lectures and library work.

101.—GOTHIC. Two hours credit, first semester, and two hours, second semester, by appointment. Braune's Gothic Grammar; Streitberg's *Gothic Bible.* Phonetics, grammar, and translation. Sturtevant.

102.—OLD NORSE. Two hours credit, first semester, and two hours, second semester, by appointment. Noreen's Altnordische Grammatik. Holthausen's Altisländisches Lesebuch; The Elder Edda. Sturtevant.

103.—GERMANIC MYTHOLOGY. Two hours credit. First semester. Kruse.

104.—OLD HIGH GERMAN. Two hours credit. First semester, by appointment. Braune's Althochdeutsche Grammatik und Lesebuch. Sturtevant.

105.—OLD SAXON. Two hours credit. Second semester. Sturtevant.

106.—MIDDLE HIGH GERMAN. Two hours credit, first semester, and two hours, second semester, by appointment. Paul's Mittelhochdeutsche Grammatik; Hartmann, Der Arme Heinrich; Nibelungenlied. Selections from Walther von der Vogelweide. Engel.

107.—SEMINAR IN GERMAN LITERATURE. Two hours credit, first semester, and two hours, second semester, by appointment. The subject for study in 1921-'22 will be Heine. Thurnau.

108.—THE ROMANTIC SCHOOL. Two hours credit, first semester, and two hours, second semester, by appointment. Early romantic school, first semester, and later romantic school, second semester. Lectures on the romantic movement, library reading, and reports. Corbin.

109.—SPECIAL STUDIES IN HEBBEL. Two hours credit. Second semester, by appointment. Kruse.

Hispanic Languages and Literatures.

Professor: OWEN (Chairman of Department).
Assistant Professors: GARDNER, OSMA, MANIBOG.
Instructors: BYRNS, BRADY, HUFFMAN, UMANA, REDING.
Assistant Instructor: SILER.

GENERAL STATEMENT. This department formed, until the summer of 1918, a part of the Department of Romance Languages and Literatures. At that time a separation was effected and an independent department created. The term "Hispanic languages" includes Spanish and Portuguese.

EQUIPMENT. The department possesses the usual pedagogical aids to linguistic study, such as wall maps, charts, lantern slides, and the like. Its library contains resources sufficient to enable students to pursue literary research and special investigation in the several fields included within its scope. The important scientific journals devoted to the subjects are received.

ADVICE AS TO CHOICE OF COURSES. Students who wish to take only five hours of Spanish to satisfy a group requirement must take course 1, if they have entered with no Spanish, course 2 if with one unit, courses 3 and 4 if with two units, courses 5 and 6 if with three units. If they have entered with four units they may select five hours from courses 7, 8 9, 10, and 11.

Courses 1 to 5, inclusive, must be taken in order, save that 3 and 4 should be taken together. Students who major in Spanish will ordinarily be required to take courses 5, 6, 7, 53, 54, 55, 56, and 57; and, if they are subsequently to do graduate work, course 58. Major students are required to take at least ten hours of French. Some knowledge of Latin is all but indispensable and a reading knowledge of German highly desirable. Outside of the linguistic field, courses in modern European and South American history and in English literature should be elected.

Students not majoring in the department, but wishing to be recommended for teaching positions in Spanish, must, in general, have taken courses 5 and 7 and one course numbered above 52.

Students not majoring in the department who desire training in Spanish suitable for the commercial, consular or diplomatic fields should take courses 6, 7, 11, and 59.

Major students should consult with the department during the second semester of their sophomore year.

SPANISH.

COURSES FOR FRESHMEN AND SOPHOMORES.

1.—ELEMENTARY SPANISH. Five hours credit. Both semesters. The essentials of grammar (Fuentes and François, *A Practical Spanish Grammar*). Careful drill in pronunciation; elementary composition and syntax; about 100 pages of easy reading; the beginnings of Spanish conversation. Gardner, Byrns, Brady, Huffman, Reding, Siler.

1 E.—ELEMENTARY SPANISH FOR ENGINEERS I. Both semesters. Five hours credit. Instruction is by a modified form of the direct method. Byrns, Huffman.

2.—SPANISH READING AND GRAMMAR. Five hours credit. Both semesters. Reading and translation of easy modern prose (Pérez Galdós, Carrión-Aza, Martínez de la Rosa, etc.) ; grammar, composition and practice in speaking Spanish. Prerequisite, course 1 (or one year in high school). Gardner, Osma, Byrns, Brady, Huffman, Umaña, Reding.

2 E.—ELEMENTARY SPANISH FOR ENGINEERS II. Five hours credit. A continuation of course 1E. Practice in writing and speaking Spanish. Byrns, Huffman.

3.—MODERN PROSE WRITERS. Three hours credit. Both semesters. Attention is devoted to the student's acquiring the ability to read ordinary Spanish prose with fluency and expression as well as to translate with accuracy. The material is chosen from the writings of modern novelists and dramatists, *e. g.*, Alarcón, Palacio Valdés, Blasco Ibáñez, Moratín, Benavente, etc. Prerequisite, course 2 (or two years in high school). Gardner, Brady.

4.—SPANISH COMPOSITION. Two hours credit. Both semesters. Systematic training in writing and speaking Spanish. Translation into Spanish of material from such books as Espinosa's *Spanish Composition*, together with short Spanish themes. Advanced grammar (Ramsey: *A Textbook of Modern Spanish*). Must accompany or be preceded by course 3. Osma, Umaña.

5.—SPANISH PROSE AND POETRY. Three hours credit. Both semesters. Specimens of the work of the poets, dramatists, essayists and novelists of the nineteenth and twentieth centuries, *e. g.*, Mesonero Romanos, Pereda, Valera, Pérez Galdós, Benavente, Martínez Sierra, etc. Required of all Spanish majors. Prerequisites, courses 3 and 4 (or three years in high school). Owen.

6.—ADVANCED SPANISH COMPOSITION. Two hours credit. Both semesters. Original Spanish themes. Advanced grammar and syntax. (Ramsey: *A Textbook of Modern Spanish.*) Required of majors. Prerequisites, courses 3 and 4 (or three years in high school). Osma, Umaña.

7.—SPANISH CONVERSATION. Three hours credit. First semester (daily). This is a laboratory course in the spoken language, and is conducted wholly in Spanish. Required of majors. Prerequisite, course 5 or its equivalent. Osma, Umaña.

8.—Introduction to Spanish Literature. Three hours credit. First semester. Rapid reading of modern authors and of a limited number of seventeenth century classics. Prerequisite, course 5 or its equivalent.
Gardner.

9.—Introductory Cervantes Course. Two hours credit. First semester. Reading of selections from the Quijote and the *Novelas ejemplares* (Ford's *Selections from Don Quijote;* Rennert's edition of the *Novelas ejemplares*), together with some consideration of Cervantes' life and times. Prerequisite, course 5 or its equivalent. Gardner.

10.—Selected Dramas of the Nineteenth Century. Three hours credit. Second semester. Reading and interpretation of representative works of the more notable dramatists of the last century (Moratín the younger, Hartzenbusch, López de Ayala, Echegaray, Pérez Galdós, etc.), with some discussion of schools and tendencies. Prerequisite, course 5.
Osma.

11.—Commercial Spanish. Five hours credit. First semester. Translation of facsimile and original business correspondence; writing of business letters; drafts, invoices and other commercial forms and usages. Reports in Spanish on consular and governmental documents. Conducted in Spanish. Prerequisite, fifteen hours or three years in high school.
Umaña.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

51.—Elementary Spanish for Upperclassmen. Five hours credit. First semester. For juniors and seniors who are beginning Spanish. More comprehensive in scope and more intensive in method than course 1 (q. v.). Not open to graduates. Owen, Gardner.

52.—Spanish Reading and Grammar for Upperclassmen. Five hours credit. Second semester. A continuation of course 51. Not open to graduates. Owen, Gardner.

53.—History of Modern Spanish Literature. Three hours credit. First semester. From 1790 to the end of the nineteenth century. The influence of French neoclassicism and of the English and French romanticists. The rise of realism. Prerequisite, course 5. Owen.

54.—The Classic Spanish Drama. Two hours credit. First semester. Moreto, Tirso de Molina, Lope de Vega, Calderón and Ruiz de Alarcón. Careful study of selected plays from each dramatist; more rapid reading of others. Prerequisite, course 5. Osma.

55.—Contemporary Spanish Literature. Three hours credit. Second semester. A study of the literary renaissance in Spain since the Spanish-American War: the "Generation of 1898"; novel, drama, and criticism. Lectures, collateral reading, and reports. Prerequisite, course 53. Owen.

56.—The Spanish Novel of the Seventeenth Century. Two hours credit. Second semester. The *Novelas ejemplares* of Cervantes, *Lazarillo de Tormes*, and other picaresque novels. Osma.

57.—Don Quijote. Three hours credit. First semester. Linguistic and literary study of the text of the great novel. Lectures, collateral readings and reports dealing with Cervantes' life and period. Prerequisite, twenty hours. Owen.

58.—History of Early Spanish Literature. Three hours credit. Second semester. From the earliest monuments to the Golden Age. Ford's *Old Spanish Readings:* Juan Ruiz, *Libro de buen amor*, etc. Lectures, reports, and term paper. Prerequisite, courses 53 and 54.
Gardner.

59.—Spanish Rhetoric. Two hours credit. First semester. Rhetorical theory and practice; frequent themes. Conducted in Spanish. Prerequisites, courses 5 and 6. Osma.

60.—Spanish Ballads. Two hours credit. First semester. The several types of the popular and the artistic ballad. Prerequisite, course 5. Gardner.

61.—Spanish Lyric Poetry. Two hours credit. Second semester. A study of the more notable lyric poets, particularly of the last two centuries. Prerequisite, course 5. Gardner.

PORTUGUESE.

70.—Elementary Portuguese. Three hours credit. First semester. Branner's grammar and about 100 pages of easy reading. Open to juniors and seniors who have had ten hours of Spanish. Not open to graduates. Osma, Brady.

71.—Portuguese Reading, Speaking, and Writing. Three hours credit. Second semester. A continuation of course 70. Not open to graduates. Osma, Brady.

90.—Teachers' Course in Spanish. Three hours credit. First semester. Theories and methods of modern language teaching; advanced grammar, bibliographies for the teacher of Spanish; examination of textbooks. Gardner.

90*a*.—Senior Teaching in Spanish. Both semesters. Gardner.

COURSES FOR GRADUATES.

100.—Seminar. Five hours credit. First and second semester. Open to candidates for an advanced degree who satisfy the instructors of their preparation and ability to undertake problems of original research. Each student may pursue a chosen line of work with the approval of the department and under the direction of its instructors. Owen.

101.—Historical Spanish Grammar. Three hours credit. First semester. A study of Spanish phonology, morphology and syntax in connection with readings from the oldest literary monuments and exercises upon facsimile manuscripts. Owen.

102.—History and Development of the Drama. Two hours credit. First semester. The drama before the Golden Age. Osma.

103.—History and Development of the Novel. Two hours credit. Second semester. The novel before Cervantes. Osma.

104.—The Romantic School. Three hours credit. Second semester. The romantic movement in Spain, particularly in its relation to those in England and France and to the national romantic tradition. Gardner.

105.—Spanish-American Literature. Three hours credit. First semester. A study of the most important poets and prose writers of Argentina, Chile, Ecuador, Nicaragua, Colombia and other Spanish-American countries, *e. g.*, Rodó, Andrade, Montalvo, Darío, Arboleda, etc. Gardner.

106.—Spanish Realia. Two hours credit. Second semester. In this course an attempt is made to present the cultural, industrial, social, and political development of Spain, particularly since 1450. Owen.

107.—Regional Literature of Spain. Three hours credit. Second semester. A general historical survey of those literatures of the Spanish Peninsula not written in Castilian. Particular emphasis will be placed upon the Catalan and Galician literatures. Osma.

108.—Old Catalan. Two hours credit. First semester. A study of the phonology, morphology and syntax of Old Catalan. Reading of some of the early monuments: Balades d'els trovayres, Mosen Jordi del Rey, Raimon Llull, Lo Desconort y sa poesia mistica, Muntaner, Ausias March. Osma.

109.—Old Portuguese. Two hours credit. Second semester. A study of the phonology, morphology and syntax of Portuguese. Reading of selections from the *Concioneiros dos trovadores, Tradicoes epicas, Poema da Batalka do Salado* of Affonso de Giraldes, Gil Vicente and Camoes.
Osma.

History.

Professors: Hodder (Head of Department), Patterson, Crawford, Davis.
Assistant Professor: Melvin.

Equipment. The University library is supplied with all the important secondary authorities and with a considerable amount of source material suitable for graduate use. The latter includes the compilation of French, British, and American statutes, and complete sets of the Archive Parlementaire, Hansard's Debates, and the successive congressional series. The periodical collections are slight but fairly comprehensive, including the *Moniteur* (not yet complete), the *Annual Register, Gentleman's Magazine, DeBow's Review,* and a file of the *National Intelligencer.*

Advice as to Choice of Courses. The plan of the department is to furnish general courses for long historical periods, a series of intensive courses for shorter periods, and a limited number of courses in special fields. The courses in mediæval and English history serve as an introduction to all the work of the department. The general courses in modern European and American history are suited to the needs of students who do not intend to specialize in history, and the general course in one of the two fields may be taken to advantage by those intending to specialize in the other. A reading knowledge of French and German is advantageous to upper-class students of history and indispensable to graduates. Students intending to take a major in this field should, early in their course, consult the instructors in the department in regard to the best arrangement of their work.

Recommendation of Teachers. Students desiring the recommendation of the department as teachers in high schools must, in addition to completing a major in the department, cover, in a manner satisfactory to the department, the field of history taught in the high schools of the state. These courses are 1, 2, either 4 and 5 or 60 and 61, 50, 51, 67, 68, 70 and 71.

COURSES FOR FRESHMAN AND SOPHOMORES.

1.—Mediæval History I. Three hours credit. First semester. A history of Europe from the barbarian invasions to the crusades.
Patterson.

2.—Mediæval History II. Three hours credit. Second semester. Covers the history of Europe from the crusades to the beginning of the sixteenth century. Should be preceded by Mediæval History I.
Patterson.

3.—English History. Five hours credit. First and second semester. Emphasis upon the growth of economic, social, and political institutions.
Crawford.

4.—Modern Europe I. Three hours credit. First semester. History of Europe from the Reformation to the French Revolution. Not open to juniors and seniors. Melvin.

5.—Modern Europe II. Three hours credit. Second semester. History of Europe from the French Revolution to the end of the Great War. Not open to juniors and seniors. Melvin.

6.—Contemporary American History. Five hours credit. First and second semesters. History of the United States since the Civil War. Not open to juniors and seniors. Davis.

COURSES OPEN TO JUNIORS, SENIORS AND GRADUATES.

50.—Greek History. Two hours credit. First semester. Political and intellectual development and social and economic changes. Patterson.

51.—Roman History. Two hours credit. Second semester. Period of the late republic and early empire receives special attention. Not necessarily preceded by Greek history. Patterson.

52.—Mediæval Institutions. Two hours credit. First semester. Growth of political and ecclesiastical institutions during the feudal period, and the organization of society in the twelfth and thirteenth centuries. Must be preceded by courses 1 and 2. Patterson.

53.—Mediæval Culture. Two hours credit. Second semester. Intellectual development of Europe from Augustine to Dante. Must be preceded by courses 1 and 2. Patterson.

54.—Italian Renaissance. Two hours credit. First semester. The political, social, economic, intellectual, and artistic development of the Italian people from the fourteenth to the sixteenth centuries. Must be preceded by courses 1 and 2. (Not given 1921-'22.) Patterson.

55.—Protestant Revolt. Two hours credit. Second semester. Antecedents of the movement in Germany, the career of Luther and the progress of the revolt to the Peace of Augsburg. Must be preceded by course 1 and 2. (Not given 1921-'22.) Patterson.

56.—English Institutions I. Two hours credit. First semester. Anglo-Saxon government, the foundations of parliament, the central and local government, the judiciary, feudalism, the manorial system, and guilds. (Not given in 1921-'22.) Crawford.

57.—English Institutions II. Two hours credit. Second semester. Tudor absolutism, the Reformation, the struggle between the crown and parliament, with special emphasis upon the nineteenth century. Must be preceded by English Institutions I. (Not given in 1921-'22.) Crawford.

58.—History of English Law I. Two hours credit. First semester. Anglo-Saxon law and procedure, the transition to common law, the growth of the judiciary, and the general principles of status and of real property. This course and the following one are open in the sophomore year to prelaw students who have had English history. Crawford.

59.—History of English Law II. Two hours credit. Second semester, at 8:30. General principles of personal property, contracts, torts, crimes, and civil and criminal procedure. Must be preceded by History of English Law I. Crawford.

60.—Foundations of Modern Europe. Three hours credit. First semester. Political and social development of Europe from 1500 to 1815. Not open to students who have had course 4. Melvin.

61.—Contemporary Europe. Three hours credit. Second semester. History of Europe from 1815 to 1914, with special reference to the causes of the Great War. Not open to students who have had course 5. Melvin.

62.—French Revolution. Three hours credit. First semester. Origin and development of the revolutionary movement in France and its effect upon Europe. Should be preceded by course 4 or 60. Melvin.

63.—Napoleon. Two hours credit. Second semester. Career and age of Napoleon with special reference to the revolutionary reconstruction of France and of Europe. Should be preceded by course 62. Melvin.

64.—Contemporary Diplomacy. Three hours credit. First semester. A review of international relations since 1882, with emphasis upon the problems that have arisen since 1904. Davis.

65.—Problems of Modern European History I. Two hours credit. First semester. Studies in special fields of modern European history. (Not given in 1921-'22.) Melvin.

66.—Problems of Modern European History II. Two hours credit. Second semester. This course is the same in character as the preceding. (Not given in 1921-'22.) Melvin.

67.—American Colonial History. Two hours credit. First semester. Discovery of America, period of Spanish and French exploration, and origin and development of the English colonies. Hodder.

68.—American Revolution and the Constitution. Three hours credit. Second semester. Causes and results of the American Revolution and the formation of the constitution. Not necessarily preceded by course 67. Hodder.

69.—American Constitutional Law. Two hours credit. Second semester. Judicial construction of the constitution of the United States from the political standpoint. Recitations. Hodder.

70.—Presidential Administrations I. Five hours credit. First semester. History of the United States from 1789 to 1850. Hodder.

71.—Presidential Administrations II. Five hours credit. Second semester. History of the United States from 1850 to 1900. Not necessarily preceded by course 70. Hodder.

72.—Latin America. Three hours credit. Second semester. Origin and development of the Latin American states, with the emphasis upon the nineteenth and twentieth centuries. Davis.

73.—Modern Asia. Three hours credit. Second semester. Distribution and condition of races in Asia, European political and commercial control of Central Asia and India, and rise of Japan as a world power. Davis.

74.—Campaigns of the Civil War. Eight weeks in the first semester. Open to students in R. O. T. C. Davis.

74.—Teachers' Course in History. Three hours credit in education. Second semester. A study in adapting historical and current social literature to the service of high-school students. High-school courses of study, methods of teaching, textbooks, reference books, and apparatus will be considered. Melvin.

75.—Senior Teaching in History. Credit in education. First and second semesters, hours to be arranged. Melvin.

COURSE FOR GRADUATES.

100 and 101.—Seminar in European History. Three or five hours credit. First and second semesters. A study of the sources in some restricted field and the preparation of papers based upon them. Melvin.

102 and 103.—Seminar in American History. Three or five hours credit. First and second semesters. Practice work with source material. Hodder.

Home Economics.

Professor: SPRAGUE (Head of Department), SHERBON.
Assistant Professors: MEGUIAR, ANDERSON, WOODRUFF.
Instructors: CLINE, WEBB.

EQUIPMENT. The department occupies nine rooms in Fraser Hall. These include two food laboratories, a chemical laboratory, a research laboratory, a textile and sewing room, and two lecture rooms with an experimental and demonstration kitchen in connection with one of them. The laboratories are equipped both for general class work and for research. The library contains the standard books on the subject.

ADVICE TO STUDENTS. The courses of instruction given in this department are planned to meet the needs of three classes of students: (*a*) those who desire a knowledge of the general principles and facts of home economics; (*b*) those who wish to major in home economics for the purpose of teaching the subject in secondary schools and colleges; (*c*) those who are interested in preparing to become dietitians, or to follow other professions.

Students who belong to groups (*b*) and (*c*) are advised to begin their work in the department as early as possible in order to secure a proper sequence of the elementary and advanced subjects; to have a desirable distribution of courses; to become thoroughly familiar with the subject matter before undertaking the course in the teaching of home economics and senior teaching; and, in the case of those who wish to do more advanced work, to provide for the necessary training in the fundamental sciences. Such students should consult the head of the department before arranging their courses.

ADVICE AS TO COURSES. Courses of a general nature which are suggested for students who are not majoring in the department, but who wish some training in the subjects pertaining to the home, are as follows: (1) Home Architecture, (2) Home Decoration, (6) Food and Nutrition, (10) Home Nursing, (12) Child Care, (65) Public Aspects of the Household, (71) Textiles, (72*a*) Clothing Design.

MAJOR REQUIREMENTS. Students may satisfy part of the requirement for the major in the department by the election of any of the following allied subjects in other departments: (53) Bacteriology of Foods, (60) Chemistry of Food Products, (52D) Food Analysis, (64) Heredity in Relation to Eugenics.

In general, the major in the department is as follows:

MAJOR IN HOME ECONOMICS.

(*Freshman-Sophomore.*)

PREREQUISITE.	PRESCRIBED. *Hrs.*	SUGGESTED. *Hrs.*
	1. Home architecture and sanitation 2	0. Sewing 0
Chemistry 1 or equivalent..	3. Selection and preparation of food... 5	2. Home decoration I... 2
Selection and preparation of food	4. Economic uses of food 5	

(*Junior-Senior.*)

	71. Textiles 3	51. Dietetics 5
		72. *a* Clothing (design) .. 3
		b Clothing (mfg.) ... 2
Selection and preparation of food ..... Home architecture, etc... Economics 1 ..... Sociology	80. Home administration, 3	65. Public aspects of the household 3
		82. Home Nursing 3
Economic uses of food... Organic chemistry, or... Bacteriology, or ..... Dietetics	52. Special problems in home economics, 3-5	81. Homes decoration II, 3
		53. Special problems in home economics.. 3-5

COURSES FOR FRESHMEN AND SOPHOMORES.

0.—Plain Sewing and Garment Making. First semester. No credit. Principles and practice in hand and machine sewing, drafting, and making of simple garments. Prerequisite to course 72*b*. Fee, $1.
Cline.

1.—Home Architecture and Sanitation. Both semesters. Two hours credit. A study of the evolution of the house; the development of its functions as a place of shelter, defense, and the center of family life; types of domestic architecture; the planning and care of the house with regard to the comfort, convenience, and health of the family. Meguiar.

2.—Home Decoration I. Both semesters. Two hours credit. The theory of color and decoration and its application in home decoration; materials suitable for various purposes in the home; furnishings from an economic, sanitary, and artistic standpoint. Meguiar.

3.—Selection and Preparation of Food. Both semesters. Five hours credit. An experimental study of the different classes of nutrients, with the application of this knowledge in the selection and preparation of foods. Prerequisite, Chemistry 1. Advised, Physiology 1. Fee, $5.
Woodruff, Anderson, Cline.

4.—Economic Uses of Food. Both semesters. Five hours credit. The principles of food preservation, marketing and domestic storage; the planning of meals to prevent waste, give variety, and regulate cost according to food values. Prerequisite, course 3. Fee, $4.
Woodruff, Anderson, Webb.

6.—Food and Nutrition. Both semesters. Five hours credit. A non-technical study of the more elementary problems of food and nutrition with reference to the food requirements of man and the considerations which should underlie our judgment of the nutritive value of food. Designed for the general student. Fee, $3. Anderson.

10.—Home Nursing. Both semesters. Three hours credit. Home hygiene; home care of the sick; prophylaxis; symptoms of disease; first aid and emergencies; maternity nursing; infant care and feeding. No prerequisites. Lecture and demonstrations daily; practice as arranged.
Cline, Sherbon.

12.—Child Care. Second semester. Three hours credit. Practical facts regarding maternity and child care; and prenatal and infant mortality, cause and prevention; prenatal care; maternal mortality; development, hygiene, morbidity and mortality of children by age groups; health of the mother as a factor in family living; modern health movements directed toward the improvement of health standards in the home.
Sherbon.

COURSES FOR JUNIORS AND SENIORS.

51*a*.—Dietetics. First semester. Three hours credit. The principles of diet; the relation of food to health; food habits and dietary standards; the dietetic treatment of diseases; experimental study of special problems in nutrition. Prerequisites: Economic Uses of Food, Organic Chemistry, Physiology 1. Physiological Chemistry advised. Anderson.

51*b*.—Dietetics Laboratory. Second semester. Two hours credit. Prerequisite, course 51*a*. Fee, $2.50. Anderson.

52.—Special Problems in Home Economics I. Both semesters. Three, four or five hours credit. A critical study of common theories and practice in food preparation and other home activities, with experimental investigation of special problems. Prerequisites, Economic Uses of Food; Elementary Organic Chemistry or Bacteriology, or Botany, or Dietetics. Qualitative and Quantitative Chemistry advised. Fee, $3 or $5. Sprague.

53.—Special Problems in Home Economics II. Second semester. Four or five hours credit. The work of each student will be under the direction of the member of the staff in charge of the subject chosen. A continuation of course 52. Fee, $3 to $5. Staff.

65.—Public Aspects of the Household. Both semesters. Three hours credit. This course is designed to give the student a view of the broader aspects of home economics as it is related to the welfare of the community. Special emphasis will be laid upon the state and Federal laws which are most directly connected with the home. Sprague.

71.—Textiles. Both semesters. Three hours credit. A study of the production and manufacture of textiles from the standpoint of the consumer; the properties and uses of the different textile fibers and fabrics; tests for adulteration; principles of cleaning fabrics. Prerequisite, Chemistry 1. Fee, $2. Webb.

72*a*.—Clothing Design. First semester. Three hours credit. A study of the history of costume with emphasis upon the factors influencing its design; the psychology of fashion; the hygiene of dress. Prerequisite, Design I. Meguiar.

72*b*.—Clothing Manufacture. Second semester. Two hours credit. Laboratory practice in carrying out designs; economic problems of the construction of clothing at home; economic and sociological phases of the clothing industry. Prerequisites, course 0, or equivalent, and 72*a*. Fee, $2. Meguiar.

80*a*.—Home Administration. Second semester. Three hours credit. A study of the home as a social unit and a classification of its problems; a brief history of the changes that have come in the work of women in the home; the economic and sociological value of home-making; the organization of the household, division of the income, general principles of buying. Prerequisites, Economic uses of Foods, or Textiles; Home Architecture and Sanitation, Sociology 1, Economics 1, or 90. Advised, Zoölogy 60 and 64. Sprague.

80*b*.—Home Administration. Second semester. Two hours credit. Laboratory work in a practice house to provide actual experience in household management, including practice in household operations, budgeting and accounting and administration of group relations under as near as possible the normal living conditions of the home and of the community. Required for those who wish to qualify as teachers of home-making in high schools receiving Smith-Hughes aid. Cline.

81.—Home Decoration II. Second semester. Three hours credit. A continuation of Home Decoration I, emphasizing the general principles of design in their application in the home. A study of selected problems in practical household designing. Prerequisite, Design I. Meguiar.

82.—Home Nursing. Second semester. Three hours credit. A special course designed to qualify teachers of home-making courses in high schools receiving Smith-Hughes aid. Lectures, demonstrations, and practice work. Cline, Sherbon.

83.—Child Care. Second semester. Two hours credit. Course similar to 12 arranged for juniors and seniors majoring in home economics. Prerequisite, Zoölogy 64. Sherbon.

COURSES FOR GRADUATES.

100.—Research Course. Either semester. Five or ten hours credit. This course should run through the year to gain ten hours credit. Original investigation of some unsolved problem relating to the home. Open to graduate students who have sufficient preparation. Fee, $1 per hour. Sprague, Woodruff.

101.—SEMINAR. Second semester. Three hours credit. Discussion of and reports on current literature relating to home economics. The full presentation of some subject will be required. Sprague.

151.—DIETETICS. Second semester. Five hours credit. Fee, $2.50. Anderson.

152.—SPECIAL PROBLEMS IN HOME ECONOMICS I. First semester. Three or five hours credit. Fee, $1 per hour. Sprague, Sherbon, Woodruff.

153.—SPECIAL PROBLEMS IN HOME ECONOMICS II. Second semester. Three or five hours credit. Fee, $1 per hour. A continuation of course 152. Sprague, Sherbon, Woodruff.

165.—PUBLIC ASPECTS OF THE HOUSEHOLD. Three hours credit. Both semesters. Sprague.

Journalism.

Professor: FLINT (Chairman of Department).
Assistant Professor: DILLON.
Instructors: POTTER, MAHIN.

Men and women intending to enter newspaper work as a profession or as a stepping stone to literary endeavor are here given the opportunity for specialized training accorded other professions. The department offers technical courses in the sophomore, junior and senior years, makes suggestions as to preparatory courses in the freshman year, and recommends supplementary courses to be pursued in the four years.

Students intending to do their major work in this field, and particularly those planning to do graduate work in journalism, should consult the faculty of the department as early as possible.

Those interested in the study of the newspaper as an organ of democracy or in its historical or ethical aspects will find in the department several courses general in their scope.

PRACTICAL WORK. The *University Daily Kansan*, published by students of the Department of Journalism, is not only a complete daily paper, receiving a telegraph news service, but is also a well-equipped laboratory for beginners in newspaper work. It affords every opportunity to put the theory of the classroom into practice. The variety and amount of real newspaper experience available for the student in the Department of Journalism is hardly limited except by the student's initiative and ability. Participation in the making of the paper does not depend upon membership on the *Daily Kansan* board. All students learn at first hand the organization of a newspaper office, become familiar with the mechanical, financial and ethical problems, and acquire speed and accuracy in reporting, copy reading, etc. Instruction in business management, particularly the science of cost finding, is emphasized.

In addition to the regular work on the *University Daily Kansan*, students do correspondence work for metropolitan papers and for the press associations, write general University news as well as special stories for the newspapers of Kansas, cover assignments for the Lawrence papers, and prepare special articles for magazines.

EQUIPMENT. The laboratory of the department has all the facilities that go to make up a modern "back office." It is equipped with typesetting machines—linotypes and a monotype—a complete composing room, a book and newspaper press, and job presses.

Reporters' desks in the "front office" are equipped with typewriters, in the use of which training is given.

The library of the department, containing a wide assortment of books on all phases of journalism, is in rooms convenient to the news room and offices. Thirty-six metropolitan dailies, representing the great news-

paper personalities of the world, are received, together with the leading national weeklies and magazines. Five hundred Kansas papers also reach the laboratory regularly.

FEES. Each student enrolled in the department pays a fee of one dollar to cover, in part, the cost of newspapers and magazines used in the daily work.

COURSES OPEN TO SOPHOMORES; NOT OPEN TO FRESHMEN.

1.—THE NEWSPAPER I. Three hours. Both semesters. The fundamental principles of gathering and writing news, with emphasis on accuracy and style; practice in reporting on the campus; survey of the organization, significance and responsibilities of the newspaper as an institution. Prerequisites, Rhetoric I and II. Potter, Mahin.

2.—THE NEWSPAPER II. Three hours. Both semesters. Intensive study of methods used in gathering and writing news, with daily work in reporting for the *University Daily Kansan*, Lawrence papers, and other publications. Practice in receiving wire news by telephone, securing news photographs. Emphasis on accuracy and speed. Dillon.

10.—COMPARATIVE JOURNALISM. Two hours. First semester. Study of the American, Canadian and foreign newspapers. A general course for students interested in the newspaper. Special lectures on the newspapers of England, France, Germany, Russia, Spain, Italy, South America, Mexico, Japan, China, the Philippine Islands. Foreign-language press in the United States. Foreign editions of American newspapers. Dillon.

11.—HISTORY OF AMERICAN JOURNALISM. Two hours. Second semester. A rapid survey of journalism from its beginnings and of English journalism to and including the struggle for liberty of the press, introducing a comprehensive study of American journalism throughout the period of its history, with special attention to its developing causes and social and political influence. Mahin.

COURSES OPEN TO JUNIORS, SENIORS, AND GRADUATES.

50.—EDITING I. Two hours. Both semesters. A course in the "desk." Practical study of the editor's work in handling newspaper copy. Copyreading of campus news, United Press and Associated Press full reports and special stories. Headline writing for *University Daily Kansan*, and a general study of the principles of make-up. Prerequisite, course 1. Potter.

51.—EDITING II. Two hours. Both semesters. Continuation of 50, with special study of organization and the problems of departments from the standpoint of the editor. A comprehensive review of the laws of libel and copyright, with practice in eliminating libelous statements from copy. A comparison of newspaper styles as affecting the copy reader, particularly as to make-up. Prerequisites, courses 1 and 50. Potter.

60.—FEATURE WRITING. Two hours. First semester. Types of the special article, sources of material, and treatment best adapted to the needs of the newspaper; the use of the camera; class criticism of the manuscript and its chances of finding a market. Prerequisite, course 1. Mahin.

61.—TRADE JOURNALISM. Two hours. Second semester. Pointing out the relation of newspapers to trade journals and other publications to which newspaper writers may contribute and edit. Preparation of articles required, with the handling of photographic materials, perfecting, copyrighting and syndicating of manuscripts. Supplemented by lectures on scientific and business journals. Dillon.

62.—MAGAZINE WRITING. Three hours. First semester. Intensive study of major types of magazine articles, as to nature, sources of material, and variety of treatment. Brief survey of the growth of the

magazine in England and America, and of the market offered by leading magazines. Class discussions and personal conferences on manuscript. Mahin.

63.—THE SHORT STORY. Three hours. Second semester. Study of selected standard and current short stories; lectures in theory; creative writing, with class discussion and personal conference. Students must confer with the instructor before enrolling for the course. Mahin.

70.—THE EDITORIAL I. Two hours. First semester. Study of types, purposes and methods of the editorial through lectures and reading; study of current editorial pages in leading metropolitan papers, compared with earlier pages in the files, and reports on current events, daily practice in writing for publication, with class discussion of the manuscript, and conferences. Mahin.

71.—THE EDITORIAL II. Two hours. Second semester. Continuation of The Editorial I; largely an assignment course, with increased practice and intensive criticism; synthesized reports on leading papers; constant observation of the news and its editorial significance; study of the principles of cartooning as an editorial resource. Must be preceded by course 1. Mahin.

72.—CRITICAL WRITING. Two hours. Second semester. Preparation for newspaper departmental work in the field of criticism. Practice in the criticism of music, books, pictures and plays. Lectures by specialists in such departments. Prerequisites, five hours in writing courses in journalism. ———.

80.—ELEMENTS OF ADVERTISING. Three hours. First semester. A survey, descriptive and historical, of the whole field of advertising. A study of the functions of advertising and of its organization as a business. Designed for students interested in any line of business, as well as for those intending to continue the study of advertising itself. Course I recommended as a prerequisite. Flint, Dillon.

81.—ADVERTISING COPY. Three hours. Second semester. A study of the application of principles of psychology to the writing of advertisements. Typography and display of advertising matter. Practice in writing copy and preparing layout, and also, for members of the class who wish it, experience in advertising salesmanship. Prerequisite, course 80. Flint, Dillon.

82.—ADVERTISING CAMPAIGNS. Three hours. First semester. Solution of practical advertising problems and planning of campaigns. Study of mediums for reaching the public. Special forms of publicity. Printing methods. Illustrating. Retail, mail-order, municipal, church, and idea advertising. Experience in salesmanship for members of the class who desire it. Prerequisites, courses 80 and 81. Flint.

83.—NEWSPAPER ADMINISTRATION I. Two hours. First semester. A study of the business side of newspaper publishing, designed to familiarize the student with the equipment of a newspaper plant, the expenses of publishing a paper, its sources of income, the handling of circulation and advertising, and the operation of a job-printing establishment. Course 1 recommended as a prerequisite. Flint.

84.—NEWSPAPER ADMINISTRATION II. Two hours. Second semester. A course in efficiency methods. Intensive study of methods for finding printing costs. How to conduct a printing business efficiently. Estimating. The terminology of printing. Judging paper stock. Course 1 recommended as a prerequisite. Need not be preceded by course 83. Flint.

85.—THE MECHANICS OF PRINTING. No credit. Both semesters. Two lectures and eight hours laboratory weekly. Students are taught to set type, make up and lock up forms, etc. This class will work on the mechanical end of the University publications.

86.—Art of Printing. No credit. Both semesters. Two lectures and five hours laboratory. Lectures on history and development of printing, with practical work in designing advertisements, title pages, etc., and study of color schemes.

Note.—Courses 85 and 86 are designed, first, to give the student a working knowledge of the mechanical department of a newspaper, that he may be better fitted for editorial supervision; second, to equip better those students who plan to own country papers; third, to reinforce rhetorical principles of mass, proportion, accuracy, emphasis, contrast, harmony, unity, and variety, by practical work with type faces.

90.—Editorial Problems and Policies I. Three hours. First semester. Ethics of journalism. Problems of the editor; his relation to the public. The managing editor: outlining newspaper campaigns. The news editor: his editorial capacity in display, quantity and position of news, and kindred problems. Prerequisite, course 1. Recommended to follow ten hours of journalism. Flint.

91.—Editorial Problems and Policies II. Three hours. Second semester. Consideration of typical problems growing out of the relations between the newspaper and its readers, its advertisers, its community, and the public in general. Sources of the newspaper's influence. Fields for dynamic journalism. Prerequisite, course 1. Need not be preceded by course 90. Recommended to follow ten hours of journalism. Flint.

COURSES OPEN TO GRADUATES ONLY.

100.—Seminar. Three to five hours. Both semesters. A research course for students having the necessary preparation to enter a specialized field of original investigation.

Law.

Professors: Burdick, Humble, Harno, Strong.
Associate Professor: Rice.

FIRST-YEAR COURSES.

1.—Contracts. The formation of contracts; offer and acceptance; form and consideration; capacity of parties; reality of consent; legality of objects; operation of contracts; limits of contractual obligations; assignment of contracts; discharge of contracts. Corbin's Cases, or Benjamin and Messing's Cases. Strong.

2.—Torts I. Introduction to the law of torts; trespass to the person and to property; nuisances; conversion; defamation. Hepburn's Cases on Torts (part). First semester, second half. Harno.

3.—Torts II. Legal cause; negligence; contributory negligence; injuries by animals; dangerous use of land; violation of statutory duties; deceit; malicious prosecution; influencing the conduct of third persons. Hepburn's Cases on Torts. Second semester, first half. Harno.

4.—Criminal Law I. Sources of criminal law; nature of criminal acts; criminal intent; common-law and statutory offenses; parties in crime; classification and elements of the specific offenses. Mikell's Cases, and Kansas Statutes. First semester, first half. Burdick.

5.—Criminal Law II. Criminal procedure; jurisdiction of offenses; arrest and extradition; examination and bail; complaints, informations, and indictments; procedure prior to the trial, the trial and verdict; procedure after the trial; appeals. Mikell's Cases on Criminal Procedure, and Kansas Statutes. First semester, second half. Burdick.

6.—Personal Property. Distinctions between real and personal property; legal conceptions: rights, privileges, powers and immunities *in rem*

and *in personam;* gifts; bailments; liens; pledges; fixtures; emblements. Bigelow's Cases on Personal Property. First semester, first half. Humble.

7.—Sales. Sales distinguished from kindred contracts; formation of the contract; effects of the contract; avoidance of the contract; performance of the contract; rights of unpaid seller against the goods, including lien and stoppage *in transitu;* remedies upon breach of the contract. Woodward's Cases. Second semester, first half. Burdick.

8.—Damages. *Damnum absque injuria;* nominal damages; liquidation of damages; aggravation and mitigation; exemplary damages; compensatory damages; nonpecuniary losses; damages in specific actions. Mechem and Gilbert's Cases. Second semester, first half. Humble.

9.—Real Property I. Introduction to real property; nature of real property and tenure thereof; feudal land law; seisin; estates; law of landlord and tenant. Burdick's Cases. Second semester, second half. Burdick.

10.—Agency. Creation and termination of relation; evidence of appointment; ratification; construction of authorizations; execution of authority; right, duties, and liabilities of principal, agent, and third party *inter se;* particular classes of agents. Wambaugh's Cases on Agency. Second semester, second half. Humble.

11.—Equity I. Nature of equity jurisdiction; relation of common law and equity; equitable interests, remedies, and principles. Boke's Cases. Second semester, second half. Strong.

12.—Practice Court. First and second semester. Rice.

SECOND-YEAR COURSES.

13.—Common-law Pleading. The development of courts and of systems of pleading; an analytical and historical study of remedies at common law; forms of actions; parties to actions; order of proceeding; pleadings; production of issue; forms of traverse; demurrers; materiality, unity and certainty in pleading. Sunderland, Cases on Common Law Pleading. First semester, first half. Rice.

14.—Insurance. The theory of insurance with reference to fire, marine, accident, and life risks; the legal relation of the parties to the insurance contract examined historically and critically, with a view to developing the fundamental principles of the contract and the law merchant underlying it; interpretation and construction of the standard policies. Wambaugh's Cases. First semester, second half. Humble.

15.—Equity II. Specific performance of contracts; relief for and against third persons; incidents of the right to specific performance; bills for an account; relief against torts; bills of interpleader; bills *quia timet;* reformation and rescission for mistake. Boke's Cases. First semester, first half. Strong.

16.—Equity Pleading. Origin and development of courts of equity; parties; bills; multifariousness; impertinence; nature and office of demurrers, pleas, answers and replications; decrees; petitions for rehearing and bills of review; changes introduced by new Federal Equity Rules. Cases on Equity Pleading, supplemented by the new Federal Equity Rules. First semester, second half. Rice.

17.—Bills and Notes. The law merchant; delivery; form and requisites; maker's contract; acceptor's contract certified paper; drawer's contract; indorsor's contract; presentment and demand; notice; protest; accommodation parties; right of holder; defenses; payment. Smith and Moore's Cases. Second semester, second half. Humble.

18.—Quasi Contracts. Recovery upon a record; recovery upon a statutory, official, or customary duty; recovery upon the theory of unjust enrichment; relation of quasi contract to equity. Thurston's Cases. First semester, second half. Humble.

19.—Wills and Administration. Testamentary capacity; kinds of wills; execution, revocation, republication and revival of wills; descent; administration; executors and administrators. Costigan's Cases on Wills, Descent and Administration. First semester, first half. Harno.

20.—Evidence. Functions of the court and jury; burden of proof; presumptions; judicial notice; competency of witnesses; hearsay rule with exceptions; circumstantial evidence; preferred evidence; the "parol evidence" rule; examination and cross-examination. Wigmore's Cases on Evidence. Second semester, first half. Harno.

21.—Persons. Husband and wife: contracts to marry; marriage; effect of marriage; statutory modifications of the common law; the wife's separate property; community property; separation and divorce. Parent and child; rights and duties. Guardian and ward: rights and duties of guardians; management and sale of the ward's property; guardian's accounts. Infants: general principles governing the contracts, torts and crimes of minors. Master and servant; general principles. Woodruff's Cases. Second semester, first half. Burdick.

22.—Code Pleading. Its relation to the common-law and equity systems; parties; splitting and joinder of causes of action; general rules of pleading; contents of complaint or petition, answer, and reply; nature and office of demurrers, motions, and bills of particulars; amendments; construction of pleadings. Sunderland's Cases on Code Pleading. Second semester, first half. Rice.

23.—Real Property II. Liens upon real property; mortgages; legal and equitable theory of a mortgage; informal and other equitable mortgages; assignment, payment, release, and foreclosure of mortgages; mechanics' liens; judgment liens notice; recording acts. Burdick's Cases. Second semester, second half. Burdick.

24.—Roman Law I. Sources and history; the Twelve Tables; codification; Institutes of Justinian. Lectures. Second semester, second half. Burdick.

25.—Practice Court. First and second semester. Rice.

THIRD-YEAR COURSES.

26.—Real Property III. Rights in the land of another; licenses; easements; profits; franchises and rents; future interests; remainders; reversions; future uses, executory devises. Rule in Shelley's case, and rule against perpetuities. Kale's Cases. First semester, first half. Burdick.

27.—Real Property IV. Title to real property; purchase and descent; adverse possession; deeds and their requisites; covenants for land; conveyancing, including execution of deeds and other instruments; the actual examination of abstracts of title, with the student's written opinion thereon; tax titles. Aigler's Cases; practice in drawing various documents of title. First semester, second half. Burdick.

28.—Constitutional Law. General principles governing the Federal and state constitutions; construction and interpretation; taxation; police power; eminent domain; civil rights; constitutional guarantees; respective powers of state and Federal governments in the regulation of commerce; laws impairing the obligation of contracts; *ex post facto* laws and retroactive laws. Hall's Cases. Second semester. Strong.

29.—Conflict of Laws. General rules; domicile; capacity; property; obligations; family law; inheritance; foreign administration. Lorenzen's Cases. Second semester, first half. Strong.

30.—Private Corporations. Functions and nature of corporations; promotion of corporations; responsibility for torts and crimes; powers; collateral attack upon the formation and powers of corporations; rights and duties of stockholders, officers and creditors; reorganization. Warren's Cases on Corporations. First semester, first half. Harno.

31.—Municipal Corporations. Nature, creation, alteration and dissolution of municipal corporations; their powers; accountability in tort and in contract; remedies of creditors; state control of municipal affairs. Macy's Cases on Municipal Corporations. First semester, second half. Harno.

32.—Suretyship. Nature of suretyship contract; kinds of suretyship; statute of frauds; obligations of the surety; defenses of the surety; surety's right of subrogation, indemnity, contribution, and exoneration; creditor's right to the surety's securities. Ames' Cases on Suretyship. Second semester, second half. Harno.

33.—Public Utilities and Carriers. Duties of public service at common law and under statutes; statutory power to regulate public utilities; railroads; telegraph, telephone, light and water companies; carriers of goods; carriers of passengers; liability of carriers for loss or injury, for delay, for misdelivery; tickets and bills of lading; connecting carriers. Burdick's cases. First semester, second half. Strong.

34.—Trusts. Trusts distinguished from other legal relationships; language necessary to create; consideration; statute of frauds; subject matter of trusts; nature of *cestui's* interest; transfer of trust *res;* extinguishment; duties of trustee. Ames' Cases. (2d ed.) Second semester, first half. Humble.

35.—Partnership. Formation of a partnership; partnership as to third persons; nature of a partnership; power of partners; rights and remedies of creditors; duties and liabilities of partners; dissolution of partnership; accounting and distribution; limited partnerships. Gilmore's Cases. First semester, first half. Humble.

36.—Bankruptcy. Jurisdiction; who may be bankrupt; petitioning creditors; acts of bankruptcy; property which passes to trustee; provable claims; duties of bankrupt and trustee; protection, exemptions, and discharge of bankrupt. Williston's Cases (second edition). Second semester, first half. Humble.

37.—Roman Law II. Law of persons; law of things; law of actions; modern development of Roman law into the civil law of Europe and America. Sherman's Roman Law, vol. II. First semester. Burdick.

38.—Provisional and Extraordinary Remedies. Habeas corpus; mandamus; quo warranto; prohibition; procedendo; arrest and bail in civil actions; replevin; attachment; garnishment; injunctions; receivers. Roberts' Cases on Extraordinary Legal Remedies, and Selected Cases, Provisional Remedies. Second semester, second half. Rice.

39.—Practice Court. First and second semester. Rice.

COURSES FOR MINING ENGINEERING STUDENTS.

Mining Law. A course outlining the laws relating to the mining industries. Lectures and recitation, one hour per week, second semester, in alternate years. (Given in 1921-'22.) Costigan's Cases on Mining Law. Mining engineering students must take this course before graduating. Humble.

FOR GRADUATES.

100.—Constitutional Law. Five hours credit. Second semester. General principles governing constitutions; the United States and the states; establishment and amendment of constitutions; construction and interpretation; departmental powers; police power; eminent domain; taxation; civil rights; constitutional guaranties; laws impairing the obligation of contracts, retroative laws. Strong.

101.—Common-law Pleading. Two and one-half hours credit. First half of first semester. An analytical and historical study of the law of

remedies at common law; special topics assigned, such as assumpsit, trover, trespass, for historical investigation of the development of the law of contracts and of torts. Rice.

103.—ROMAN LAW. One hour a week. First semester. Development and extension of Roman law; its revival and present influence; the *corpus juris civilis;* the law of persons, of the family, of property, of servitude, of obligations, of delicts, of inheritance, of procedure. Burdick.

SUGGESTIONS: The courses in WILLS (Professor Harno, first semester, first half), and INSURANCE (Professor Humble, first semester, second half) are worthy of consideration for graduate work. The course in CRIMINAL LAW (Burdick, first semester) should be valuable for graduate students in sociology.

SPECIAL COURSES.

The following courses in the School of Law are open to College juniors and seniors who do not elect courses from other professional schools but not more than thirty hours may be counted towards the degree of Bachelor of Arts. Students desiring admission to any of these courses must register in the School of Law as well as in the College, and will be admitted to the classes as first-year law students.

52.—CRIMINAL LAW. Five hours credit.

53.—AGENCY. Two and one-half hours credit.

54.—CONTRACTS. Five hours credit.

56.—TORTS. Five hours credit.

57.—SALES. Two and one-half hours credit.

59.—PERSONAL PROPERTY. Two and one-half hours credit.

60.—EQUITY I. Two and one-half hours credit.

61.—REAL PROPERTY I. Two and one-half hours credit.

52.—MINING LAW. One hour credit. Second semester, alternate years. Outline of the laws relating to the mining industries. Recitations and lectures. Next given in 1922. Humble.

The following courses may, in exceptional instances, be taken in the School of Law by College juniors or seniors and the work credited toward the A. B. degree, provided such courses are preceded or accompanied by the course in contracts, and subject to the thirty hour credit maximum above specified:

INSURANCE. Two and one-half hours credit.

BILLS AND NOTES. Two and one-half hours credit.

WILLS AND ADMINISTRATION. Two and one-half hours credit.

PERSONS. Two and one-half hours credit.

PRIVATE CORPORATIONS. Three hours credit.

MUNICIPAL CORPORATIONS. Two hours credit.

PUBLIC UTILITIES AND CARRIERS. Two and one-half hours credit.

PARTNERSHIP. Two and one-half hours credit.

Mathematics.

Professors: Ashton (Chairman of Department), Mitchell.
Associate Professors: Stouefer, Lefschetz.
Assistant Professors: Jordan, Wheeler, Smith.
Instructors: Marm, Black, Rice, Henry.
Assistant Instructors: Babcock, Carpenter, McLatchey, Young.

Equipment. The Department of Mathematics has a good collection of models in wood, plaster of Paris, and strings, illustrating various theorems of geometry and analysis. The library contains about 2,500 volumes relating to mathematics.

COURSES FOR FRESHMEN AND SOPHOMORES.

1.—Solid Geometry. Two hours credit. Second semester. Open to students who do not offer solid geometry for entrance. Staff.

2*a*.—College Algebra. Three hours credit. Both semesters. Open only to students presenting one and one-half units of algebra for entrance. Staff.

2*b*.—College Algebra. Five hours credit. Both semesters. Intended for students who have entered with only one unit of algebra. It may also be taken by students offering one and a half units of algebra for entrance, but for such students it will give only three hours credit. Staff.

3*a*.—Plane Trigonometry. Two hours credit. Both semesters. Must be preceded or accompanied by course 2*a* or 2*b*. Staff.

3*b*.—Plane Trigonometry. Three hours credit. Second semester. Must be preceded by course 2*a* or 2*b*. Staff.

4.—Analytical Geometry I. Two hours credit. Both semesters. The straight line; circle; elementary curve tracing. Prerequisites, courses 2 and 3; may be taken at the same time with course 3*b*. Stouffer, Smith.

4E.—Analytical Geometry. Five hours credit. Both semesters. Required of all freshmen in the School of Engineering. Wheeler, Marm, Black.

5.—Differential Calculus. Three hours credit. Both semesters. Open to students who have completed or are taking course 4. Stouffer, Smith.

5E.—Calculus I. Five hours credit. Both semesters. Differential and integral calculus. Required of all sophomores in the School of Engineering. Lefschetz, Jordan, Wheeler.

6.—Analytical Geometry II. Two hours credit. Both semesters. Conic sections; higher plane curves; introduction to solid analytics. Prerequisite, course 4. Ashton, Mitchell.

7.—Integral Calculus. Three hours credit. Both semesters. Prerequisites, courses 5 and 6; may be taken at the same time with course 6. Ashton, Mitchell.

7E.—Calculus II. Three hours credit. Both semesters. Applications of the calculus to areas, volumes, centers of gravity, etc. Required of all sophomores in the civil, electrical and mechanical courses in the School of Engineering. Ashton, Lefschetz, Jordan, Wheeler, Smith.

9.—Solid Analytical Geometry. Two hours credit. Second semester. Prerequisite, course 6. Ashton.

10. Mathematical Theory of Investment. Three hours credit. Second semester. Interest; annuities; amortization and valuation of bonds; probability as applied to life insurance. Not open to freshmen. Prerequisite, course 2*a* or 2*b*. Stouffer.

11.—Theory of Equations. Three hours credit. Second semester. Study of algebraic equations and related topics. Prerequisite, course 5. Mitchell.

COURSES FOR JUNIORS, SENIORS, AND GRADUATES.

50.—ANALYTICAL MECHANICS. Three hours credit. Second semester. Center of gravity; moments of inertia; general theory of rectilinear and curvilinear motion in space. Prerequisite, course 7. Smith.

51.—DIFFERENTIAL EQUATIONS. Three hours credit. First semester. Ordinary and partial differential equations; integration in series; applications to geometry and physics. Prerequisite, course 7. Mitchell.

52.—ADVANCED CALCULUS. Three hours credit. First semester. Critical review of the fundamental notions of calculus; multiple integrals; applications to geometry and physics. Prerequisite, course 7. Stouffer.

53.—ELLIPTIC INTEGRALS. Two hours credit. Second semester. Elliptic integrals; Jacobian elliptic functions; application to geometry and physics. Prerequisite, course 7. Ashton.

54.—ELEMENTARY NUMBER THEORY. Two hours credit. Second semester. Theory of divisibility; prime numbers; congruences; elements of theory of residues. Lefschetz.

55.—SERIES. Two hours credit. First semester. Fundamental theorems on limits; convergence of infinite series; power series; operations with infinite series; infinite products. Prerequisite, course 7. Ashton.

57.—COMPLEX NUMBERS. Three hours credit. Elementary theory of functions of a complex variable. Prerequisite, course 55. Ashton.

57E.—SELECTED TOPICS IN ENGINEERING MATHEMATICS. Second semester, three hours. Complex numbers and vectors, exponential and trigonometric series, hyperbolic functions, differential equations of electrical and mechanical engineering, empirical curves, methods of approximation and numerical calculation. The course may be modified to suit the needs of the class. Optional for juniors, seniors, and graduates. Jordan.

59.—PROJECTIVE GEOMETRY I. Three hours credit. First semester. Fundamental forms; principle of duality; projectivity; coördinate systems; linear transformations. Prerequisite, course 7. Stouffer.

60.—PROJECTIVE GEOMETRY II. Three hours credit. Second semester. Harmonic sets; involution; conic sections. Prerequisite, course 59. Stouffer.

62.—HISTORY OF MATHEMATICS. Two hours credit. First semester. The historical development of elementary mathematics. Prerequisite, course 7. Mitchell.

63.—MATHEMATICAL THEORY OF STATISTICS. Two hours credit. Second semester. Intended for students in psychology, economics, and biological sciences. Prerequisite, course 2. Ashton.

67.—SELECTED TOPICS IN ENGINEERING MATHEMATICS. Three hours credit. Second semester. Optional for juniors, seniors and graduates in the School of Engineering. Jordan.

89.—TEACHERS' COURSE IN MATHEMATICS. Three hours credit. Second semester. The history, teaching and mutual relations of the mathematical subjects usually taught in junior and senior high schools. Prerequisites, courses 7 and 62. Mitchell.

90.—SENIOR TEACHING IN MATHEMATICS. Both semesters. Mitchell.

COURSES FOR GRADUATES.

100.—THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. Three hours credit. Throughout the year. An introduction to the general theory of functions of a complex variable. Ashton.

101.—Theory of Functions of a Real Variable. Three hours credit. Throughout the year. Assemblages; limits; continuity; convergence; derivatives; integral. Mitchell.

102.—Theory of Elliptic Functions. Three hours credit. Throughout the year. Ashton.

103.—Seminar. Three to five hours credit. Throughout the year. Ashton, Mitchell, Stouffer, Lefschetz.

107.—Higher Algebra. Three hours credit. Second semester. Selected topics in Bocher's Introduction to Higher Algebra. Mitchell.

108.—Galois' Theory of Equations. Two hours credit. First semester. The application of the method of groups to the study of algebraic equations. Ashton.

110.—Theory of Curves and Surfaces. Three hours credit. Throughout the year. Lefschetz.

111.—Differential Geometry. Two hours credit. Throughout the year. Applications of the calculus to the theory of curves and surfaces. Stouffer.

113.—Advanced Projective Geometry. Three hours credit. Throughout the year. The logical foundations of projective geometry; principle of duality; introduction of analytic methods on a synthetic basis; collineation. Mitchell.

114.—Fourier's Series. Three hours credit. Throughout the year. Development of functions in Fourier's series, with applications to the solution of problems in physics. Stouffer.

115.—Projective Differential Geometry. Three hours credit. Throughout the year. Invariants and covariants; projective differential geometry of curves and surfaces. Stouffer.

121.—Theory of Numbers. Three hours credit. Second semester. Divisibility; congruences; roots; quadratic forms; laws of reciprocity of Legendre-Gauss. Lefschetz.

Medicine.

(Rosedale.)

PREVENTIVE MEDICINE.

Professor: Crumbine.
Assistant: Gloyne.

1.—Public Health. One hour credit. Second year, spring semester.

(*a*) Sanitary engineering, water supplies, sewage collection, purification and disposal, sanitary architecture, plumbing, ventilation, public buildings, schools, hospitals, dwellings, etc.

(*b*) Special sanitation of public institutions, of transportation, school hygiene, rural, occupational, and other special sanitation.

2.—Public Health. One hour credit. Fourth year, fall semester.

(*a*) Introductory, historical, definitions and principles, relations of hygiene to other sciences and professions.

(*b*) Vital statistics, economics of disease, eugenics, other social aspects and problems.

(*c*) Immunity, race questions, infection.

3.—Preventive Medicine. One hour credit. Fourth year, spring semester.

(*a*) The study of environment, air, water (including ice and mineral waters), milk, dairy hygiene and milk products, other foods, soil, sewage.

(*b*) Infectious diseases and their epidemiology (including venereal diseases), notifiable diseases.

(*c*) Vaccines and protective inoculations.

(*d*) Disinfection and disinfectants.

(*e*) Animal parasites.

(*f*) Insects and disease, the control of diseases through the control of their disseminators.

(*g*) Diseases communicated to man by the lower animals.

(*h*) Legal and administrative devices for the control of diseases, the principles of sanitary law illustrated by the sanitary laws of Kansas, quarantine and isolation, health officers and boards (Federal, state and local), municipal sanitation, pure foods and drugs, hygienic laboratories, the education of the public.

PATHOLOGY AND BACTERIOLOGY.

Professor: WAHL.
Assistant Professor: BLACK.
Technical Assistant: HUNTZINGER.

1.—GENERAL AND SPECIAL PATHOLOGY. (*At Rosedale.*) Six hours credit. Spring semester, twelve hours per week. Explanatory lectures on pathological processes occupy three hours a week and are supplemented with laboratory work in gross morbid anatomy, pathological histology and experimental pathology. Quiz conferences, lantern demonstrations, microscopic projection and written tests are given. The course also included practical work in autopsy and histological technic. Throughout the course every effort is made to correlate the work with that of the clinic laying proper emphasis upon the functional changes as well as the gross morbid and histopathologic alterations. During the course two hours a week are allotted to gross morbid anatomy utilizing both fresh and museum material as well as that obtained in experimental pathology. Required of all second year students. Wahl.

2.—EXPERIMENTAL PATHOLOGY. (*At Rosedale.*) One hour credit. Supplementary to course 1. Students are assigned some special problems in experimental pathology and demonstrate the results of their experiments to the class. Required of second year students. Wahl.

3.—GROSS MORBID ANATOMY AND AUTOPSY TECHNIC. (*At Rosedale.*) Two hours credit. Both semesters. Students are assigned to perform autopsies under supervision. All fresh gross material obtained during the week is discussed with the class once a week, with emphasis made on the correlation with the clinical history. Required of third year students. Wahl.

4.—PATHOLOGICAL PHYSIOLOGY. (*At Rosedale.*) Two hours credit. Fall semester. This course takes up the disturbances of function occurring in disease with consideration of the anatomical changes produced. Required of third year students. Wahl.

5.—CHEMICAL PATHOLOGY. (*At Rosedale.*) Two hours credit. Spring semester. This course takes up fundamental chemical changes underlying pathological processes. Required of third year students. Wahl.

6.—CLINICAL PATHOLOGY. Elementary course. (*At Rosedale.*) Two hours credit. Spring semester. Students are trained in routine blood, urine and gastric analysis, and in the examination of throat secretions, cerebrospinal fluids and pathological exudates. Required of second year students. Black.

7.—CLINICAL PATHOLOGY. Advanced course. (*At Rosedale.*) Three hours credit. Modern methods of microscopical, bacteriological, serological and chemical diagnosis and technic are given. Constant use of clinical material from the hospital is utilized and emphasis made upon the clinical

significance of the results obtained. Parasitology and its bearing on clinical pathology is considered in the various divisions of the course. Demonstrations of the technic employed in removing fluids from the body cavities and spinal canal is demonstrated. The practical application of immunology is also given. Black.

8.—Clinical Pathology. Practical. (*At Rosedale.*) One hour credit. Two students are assigned each week to perform a part of the routine clinical laboratory work of the hospital under supervision. Black.

9.—Advanced Bacteriology and Pathology. (*At Rosedale.*) Open to advanced students who have had sufficient preparation. Experimental work and research in all branches of bacteriology, pathology and immunology, arranged to suit the needs of individual students. Wahl.

10.—Clinical-Pathological Conference. (*At Rosedale.*) One hour a week. Both semesters. Open to fourth year students. A conference is held between the clinical and pathology departments with a discussion of pathological material obtained during the week. Wahl.

Total Hours of Required Work, 432. General and Special Pathology 208, Gross Morbid Anatomy 64, Physiological Pathology 32, Chemical Pathology 32, Clinical Pathology 96.

MEDICINE.

Professors: Milne, Bohan, Murphy, Wolf.
Associate Professor: Trimble.
Assistant Professor: Dennie.
Instructors: Clendening, Myers, Harrington, Ridge, Boughnou, Snider, Krall, Davis, Knappenberger.
Clinical Assistant: Hunt.

The course in medicine begins in the second half of the second year and leads up to the individual study of clinical cases in the fourth year.

SECOND YEAR.

1.—Physical Diagnosis I. Two hours credit. Spring semester. The course consists of demonstrations and practical exercises illustrating the simpler methods of physical examination of the normal organs, with the exposition of the physical laws involved. It includes also instruction in the recording of clinical cases. Demonstrations are also conducted in the dispensary and in the hospital for the practical study of physical signs of diseases conditions. Boughnou, Ridge.

2.—Laboratory Diagnosis. Two hours credit. Spring semester. In this class students are trained in the methods of examining blood, sputum, and throat secretions, gastric contents, cerebrospinal fluids, urine, feces, pathological exudates, etc. Black.

THIRD YEAR.

4.—Systematic Medicine. Both semesters. A course of lectures is given on the differential diagnosis of diseases of the cardiovascular and respiratory systems, the peritoneum, liver, kidney, adrenals, thyroid, pancreas, and disorders of metabolism. This course particularly relates to the correlation and practical adaptation of the recitation courses. Milne.

5.—Clinical Medicine. Two hours credit. Both semesters. Ward classes are held twice a week, in which cases are demonstrated, as far as possible, to illustrate the subjects of the lecture course at that time. Murphy.

Ward Work. Students are assigned to cases for individual study, and are required to prepare records of these cases and to note the progress and treatment of the disease.

6.—Recitations. In this course students are quizzed on lessons assigned in Osler's Practice of Medicine.

Both semesters; two hours credit. Myers.
Both semesters; two hours credit. Krall.
Both semesters; one hour credit. Snider.

7.—Clinical Bacteriology, Serology, and Hematology. Two hours credit. Fall semester. In this course instruction is given in agglutinative and other serum tests, including the Widal and Wassermann reactions, the bacteriology of pathological exudates, blood cultures, vaccine therapy and diseases of the blood. Black.

8.—Diseases of the Stomach and Intestines. One hour credit. Spring semester. A systematic lecture course on diseases of the stomach and intestines. Wolf.

9.—Out-patient Work. Assignments are also made to the different dispensary rooms. Each case is allotted to a student, whose duty it is to prepare the history and to examine the patient, under the direction of the physician in charge, who advises the treatment to be carried out in each case.

10.—Clinical Medicine. Eight hours credit. Both semesters. At St. Margaret's Hospital and at Bell Hospital. Clinics are given at the bedside and in the dispensary on selected cases. Each of these cases has previously been studied by one student, who is responsible for the history of the case and for a special knowledge of this type of disease.
Milne, Bohan, Krall.

11.—Rœntgenology as Applied to Medicine. One hour credit.
Knappenberger.

12.—Dietetics. One hour credit. Fall semester. A lecture course on the dietetic treatment of disease. Wolf.

13.—Infectious Diseases. One hour credit. Spring semester. Practical instruction given in contagious diseases in the hospital of the city.
Davis.

14.—Therapeutics. One hour credit. Both semesters. Clendening.

PSYCHIATRY AND NEUROLOGY.

Professors: Skoog, Kuhn, Uhls, Glasscock.
Assistant Professor: Gibson.

THIRD AND FOURTH YEARS.

1.—Functional and Organic Diseases of the Nervous System. Two hours credit. Fall semester. Required of third-year students. Kuhn.

2.—Psychiatry. One hour credit. Lectures covering the following subjects are given: History of insanity, forms of insanity, care and treatment of insanity in hospitals, care and treatment of insanity in general practice, state care of insane, and the relation of heredity to insanity. Both semesters. Fourth year. Glasscock, Uhls.

3.—Clinical Neurology and Neuropathology. Two hours credit. Both semesters. This course includes practical exercises and demonstrations on the pathology of nervous diseases. Clinical demonstrations of neurological cases are also conducted, and students are assigned to the practical study of the nervous cases in hospital to be reported on at the class meeting. Dispensary cases are utilized. Skoog.

4.—Clinical Neurology. One hour credit. Both semesters. Demonstrations of cases at St. Margaret's Hospital and at Bell Hospital. Required of seniors. Skoog.

DERMATOLOGY.

Professor: SUTTON.
Assistant Professor: DENNIE.

THIRD YEAR AND FOURTH YEAR.

1.—INTRODUCTORY COURSE. One hour credit. Spring semester. Lectures and recitations. The anatomy and physiology of the skin, together with symptomatology, pathology, and clinical manifestations of the commoner skin diseases. Required of third-year students. Dennie.

FOURTH YEAR.

2.—CLINICAL DERMATOLOGY. One hour credit. Both semesters. Lectures, and demonstrations of the various skin diseases, at the Bell Memorial Hospital. Fourth year. Sutton.

PEDIATRICS.

Assistant Professor: COWHERD.
Assistant: WALTHALL.

THIRD YEAR.

1.—PEDIATRICS. One hour credit. Fall semester. Lectures, quizzes and demonstrations of the normal child; its development and feeding; the chemistry of milk; stools of infancy. Contagious and infectious diseases. Cowherd, Walthall.

2.—DIFFICULT FEEDING AND DIGESTIVE DISTURBANCES OF INFANCY. One hour credit. Spring semester. Lectures and demonstrations, showing the diseases of nutrition and metabolism, *i. e.*, atrophy and malnutrition, rickets, scurvy, and ileocolitis. Cowherd, Walthall.

FOURTH YEAR.

3.—DISEASES OF CHILDREN. Two hours credit. Both semesters. Lectures and demonstrations. Cowherd.

4.—CLINICS. (*a*) Instruction in diseases of children and infancy given in Bell Hospital, and out-patient department, in sections of eight to ten men. Both semesters. Two hours credit. Walthall.

(*b*) Clinical work given in wards of Mercy Hospital. Sections limited to four students. Special emphasis is laid upon normal and abnormal physical findings. Spring semester. Two hours. Cowherd.

SURGERY.

Professors: SUDLER, GRAY, CURRAN, HERTZLER, HALL.
Associate Professors: CUNNINGHAM, ORR, ROBERTS, FRANCISCO, MCCARTY.
Assistant Professors: OCKERBLAD, MCDERMOTT.
Instructors: KNAPPENBERGER, PICKENS, MYERS.
Assistant: RUMSEY, SWINNEY.

Instruction in the principles of the various branches of surgery is given by means of lectures, recitations, and assigned subjects. Clinical instruction is given in the dispensary, in the Bell Memorial Hospital, and in St. Margaret's Hospital.

SECOND YEAR.

1.—ANÆSTHETICS. One hour credit. Spring semester. Lectures and assigned reading. Required of second-year students. Cunningham.

2.—MINOR SURGERY. Two hours credit. Spring semester. Instruction in bandaging and dressings, at the dispensary. Required of second-year students. Orr.

THIRD YEAR.

3.—General Surgery. Two hours credit. Fall semester. Lectures, recitations, conferences, and assigned work. An introduction to the principles underlying surgical procedure. Required of third-year students. Sudler.

4.—General Surgery. Two hours credit. Spring semester. A continuation of course 3. Required of third-year students. Sudler.

5.—Fractures and Dislocations. Two hours credit. First semester. Lectures and recitations. Required of third-year students. Orr.

7.—Genitourinary Surgery. One hour credit. Both semesters. Lectures and recitations. Required of third-year students. Ockerblad.

8.—Surgical Pathology. Two hours credit. Spring semester. Required of third-year students. Hertzler.

9.—Clinical Surgery. At the Bell Memorial Hospital. Two hours credit. Spring semester. Required of third-year students. Sudler.

FOURTH YEAR.

11.—Operative Surgery. Two hours credit. Spring semester. Animal experimentation and work on the cadaver. Required of fourth-year students. Hertzler.

12.—Surgical Conferences. One hour credit. Spring semester. Papers on assigned subjects. Required of fourth-year students. Sudler.

13.—Electrotherapeutics. One hour credit. Both semesters. Lectures and demonstrations. Required of fourth-year students. McDermott.

14.—Clinical Surgery. Three hours credit. Both semesters. Assigned in sections. At St. Margaret's Hospital. Required of fourth-year students. Gray, Nesselrode.

15.—Orthopedic Surgery. One hour credit. Both semesters. Lectures and recitations. Required of fourth-year students. Francisco.

16.—Clinical Surgery. Two hours credit. Fall semester. Instruction in the Bell Memorial Hospital. Sudler.

17.—Orthopedic Surgery. One hour credit. Fall semester. Instruction in wards at Mercy Hospital, in sections of four. Francisco.

OTORHINOLARYNGOLOGY.

THIRD YEAR.

1.—Rhinolaryngology. One hour credit. Spring semester. The course consists of a review of the anatomy and physiology of the parts, a drill in the use of instruments for diagnosis and in the methods of examination illustrated by demonstrations on patients; also, of lectures, quizzes, and the examination of microscopical specimens. Required of third-year students. Hall, Roberts, McCarty, Myers.

2.—Otology. One hour credit. Spring semester. The plan of instruction pursued in the study of diseases of the ear is the same as that in the department of nose and throat. Required of third-year students. Hall, Roberts, McCarty.

FOURTH YEAR.

3.—Rhinolaryngology. One hour credit. Fall semester. This course is a continuation of course 1. Here also the students are taught in groups. The subject matter of this course consists of a study of the deformities and diseases of the nose and throat and their treatment. Required of fourth-year students. Hall, Roberts, McCarty, Myers.

4.—Clinical Work. Clinical instruction in diseases of the ear, nose, and throat is given in the dispensary and by hospital clinics by means of

direct examination of patients under the supervision of instructors, who personally teach each student proper methods of examination and the correct interpretation of his observations.

Hall, Roberts, McCarty, Myers.

OPHTHALMOLOGY.

1.—Physiological Optics. One hour credit. Instruction is given second-year students in physiological optics; vision tests, color tests, the taking of the field of vision, etc. Optical boxes, artificial eyes, ophthalmoscopes and suitable apparatus are provided for all physiological work and study. The course consists of laboratory work and demonstrations under the professor of physiology in the regular course in physiology.

Curran.

2.—Lectures, Demonstrations, and Clinical Work in Dispensary. Two hours credit. Both semesters. The course covers objective and subjective examination of the patient, functional testing, diseases, and injuries, medical and surgical ophthalmology, and the relation of the eye to general diseases. Required of third-year students. Curran, Pickens.

3.—Practical Work. Fourth year. One hour credit. Both semesters. Clinics are given in the Bell Memorial Hospital. The students are divided into small sections and each individual has the opportunity of closely inspecting the patients suffering from external diseases of the eye, of making the commoner applications used in the treatment, of assisting in the operating room, of studying refractive errors, functional testing, etc. Each student is required to become proficient in refraction. Curran, Pickens.

Total Hours of Instruction 838. Anæsthetics, 9; minor surgery, 36; general surgery, 36; regional surgery, 54; fractures and dislocations, 36; orthopedic surgery, 18; genitourinary surgery, 36; surgical pathology, 54; operative surgery, 144; surgical diagnosis, 36; surgical conferences, 18; rectal surgery, 9; clinical surgery, 144; amphitheater clinics, 144; ear, nose, and throat, 16; eye, 16; ear, nose, throat and eye clinics, 32.

OBSTETRICS AND GYNECOLOGY.

Professor: Guffey.
Associate Professor: Irland.
Assistant Professor: Vanorden.
Instructor: Singleton.

Instruction in the principles of obstetrics and gynecology is given by means of lectures, recitations, and demonstrations. Clinical instruction is given in the dispensary and wards of the Bell Memorial hospital. Further practical instruction in obstetrics is obtained through the outpatient department.

SECOND YEAR.

1.—Physiological Obstetrics. Two hours credit. Spring semester. Lectures and recitations. Required of second-year students.

Vanorden.

THIRD YEAR.

2.—Pathological Obstetrics. Two hours credit. Fall semester. Lectures, recitations, and demonstrations. Required of third-year students. Guffey.

3.—Diseases of the Female Genital Tract. Two hours credit. Spring semester. Lectures, recitations, and demonstrations of illustrative pathological material. Required of third-year students.

Irland.

4.—Operative Obstetrics. One hour credit. Spring semester. Recitations, demonstrations, and practice on the manikin by the student. Required of third-year students. Singleton.

5.—Obstetrical and Gynecological Pathology. Two hours credit. Fall semester. A course devoted to the study of gross and microscopic pathology with special reference to specimens removed from patients operated upon before the class. Required of fourth-year students.

THIRD AND FOURTH YEARS.

6.—Dispensary. One hour credit. A minimum of eighteen hours is required. A course devoted chiefly to history taking, the technic of examination, and the treatment of ambulatory patients. Students assigned in groups. Guffey, Singleton.

7.—Practical Work in Obstetrics. The conduct of two births in a hospital and eight on the out-patient service is required before graduation. Assigned work. Singleton.

FOURTH YEAR.

8.—Clinical Conference in Obstetrics and Gynecology. Two hours credit. Both semesters. An exhaustive consideration of all cases in the Bell Hospital. Also, reports and discussion of case histories and important abnormalities met with in the out-patient service. Required in fourth-year students. Guffey.

9.—Clinics in Obstetrics and Gynecology. Two hours credit. Both semesters. This course logically follows course 6, as the same patients are further examined, given treatment, or operated upon. Students present histories, assist with operations, and make full reports of patnological findings, operative technic, or treatment. Required of fourth-year students. Guffey.

Total Hours of Instruction, 272. Gynecology: didactic, 32; clinical, 77; laboratory, 16; total, 115. Obstetrics: didactic, 86; clinical, 77; laboratory, 16; total, 179. Total: didactic, 118; clinical, 154; laboratory, 32.

Pharmacy.

MATERIA MEDICA.

Professors: Sayre, Bailey, Nelson.

1.—Materia Medica. Three hours. First semester. The classification and therapeutic effects of drugs and medicines. Nelson.

52.—Materia Medica. Four hours. First semester. A critical study of the drugs and preparations of the U. S. Pharmacopœia and National Formulary. Lectures and recitations. Sayre.

53.—Materia Medica. Three hours. Second semester. The classification, physical description and chemical constitution of the crude drugs of the pharmacopœias; their chemical and physiological properties, and therapeutic application; methods of prescribing and dispensing; the action of organic and inorganic chemicals and their physiological relationships. Lectures and recitations. Sayre.

54.—Toxicology. One hour. First semester. Lectures on poisons, their history, source, properties, methods of detection and antidotes. Must be preceded by fifteen hours of chemistry. Bailey.

61.—Introductory Pharmacology and Materia Medica. (*At Lawrence.*) Two hours credit. First semester. This course embraces the study of weights, measures, processes used in the preparation of medicines, illustrated by exercises in the pharmaceutical laboratory; prescription writing; and physical properties and identification of crude drugs. Nelson.

62.—Introductory Pharmacology and Materia Medica. (*At Lawrence.*) Three hours credit. First semester. Classification, chemical and physical properties of drugs, therapeutical application, method of prescribing and dispensing, the action of organic and inorganic chemicals and their physiological relationships. Lectures and recitations. Required of second-year students. Must be preceded by course 61. Three hours, fall term at 1:30. Sayre.

63.—Introductory Pharmacology and Materia Medica. (*At Rosedale or Lawrence.*) Two hours credit. Second semester. A continuation of course 62. Sayre.

64.—Laboratory Work in Pharmacology. (*At Lawrence.*) Two or more hours credit. The facilities for pharmaceutical investigation of a practical character are made necessary by the intimate connection of the drug laboratories with the State Board of Health. Investigation of the physiological action of drugs and chemical analysis of active (toxic) principles. Either semester, by appointment. ———, Sayre.

PHARMACEUTICAL CHEMISTRY.

Professors: Sayre, Havenhill.

1.—Pharmaceutical Chemistry. Two, three or five hours. Second semester. A course embracing the fundamental analytical operations as applied in determining the strength and purity of drugs and medicines. Must be preceded by a course in quantitative analysis. Havenhill.

50.—Plant Analysis. Two, three or five hours. Elective. Either semester. The separation and estimation of the proximate principles of plants. Must be preceded by chemistry 49 and pharmaceutical chemistry 1. Sayre, Havenhill.

51.—Analysis of Drugs and Medicines. Five hours. Either semester. This is a companion course to food analysis (See Chemistry 52D) and is arranged especially for students who desire to qualify as food and drug analysts. Must be preceded by five hours of chemistry 49. Sayre, Havenhill.

52.—Analysis of Nostrums. Five hours. Either semester, by appointment. Must be preceded by Pharmaceutical Chemistry 51 or five hours of Chemistry 49. Sayre.

53.—Phytochemistry (Plant Chemistry). Five hours. Either semester. Original investigation and research work on the chemical constituents of plants, dealing especially with such constituents as exert a marked physiological action when introduced into the animal economy. Prerequisite, general, organic, qualitative and quantitative analysis. Sayre.

54.—Research in Pharmaceutical Chemistry. Two or more hours credit. Must be preceded by five hours in pharmaceutical chemistry. Throughout the year, by appointment. Havenhill.

PHARMACOGNOSY.

Professor: Sayre.
Assistant Professor: Sterling.

1.—Pharmacognosy. Five hours. Second semester. An introduction to taxonomy; a study of the geographical distribution, origin and physical characteristics of crude vegetable drugs, and elementary technique in the examination of powdered drugs. Laboratory and lectures. Prerequisite, course 1. Sterling.

50.—Microanalysis of Powdered Drugs and Foods. Five hours. Second semester. Methods in sectioning and staining, the preparation of powders, and microscopical examination. Laboratory lectures. Prerequisite, course 1 or Botany 4. Sterling.

51.—Advanced Work in Microanalysis of Drugs and Foods. Two, three, or five hours. First or second semester, by appointment. A course designed to meet the needs of students preparing to be drug and food analysts. Methods in plant histology; microchemical technique, and quantitative determination of adulterants. Laboratory and lectures. Prerequisite, Pharmacognosy 50. Sterling.

PHARMACY.

Professors: Sayre, Havenhill.
Assistant Professor: Spencer.

1.—Introductory Pharmacy. Two hours. First semester. Lectures, recitations and laboratory. The history of the Pharmacopœia and a study of the apparatus and processes employed in the preparation of medicines. Havenhill.

2.—Pharmaceutical Arithmetic. Three hours. First semester. A study of weights, measures, specific gravity, and the principles of pharmaceutical arithmetic. Lectures and recitations. Havenhill.

3.—Official Pharmacy. Two hours. Second semester. A systematic study of the official preparations, including their classification, preparation, and preservation. Must be preceded by course 1. Lectures and recitations. Havenhill, Spencer.

4.—Inorganic Medicinal Chemicals. Three hours. First semester. The source, manufacture, physical properties, general and specific characteristics and identity of inorganic substances used in medicine. Lectures, recitations, and laboratory work. Must be preceded by introductory chemistry. Havenhill.

50.—Manufacturing Pharmacy. Four hours credit. Senior, first semester. Practical work in the manufacture of standard medicinal preparations, as contained in the Pharmacopœia and National Formulary. Laboratory work and recitations. Must be preceded by Pharmacy 1, 2, 3, 4, and Botany 1. Spencer.

51.—Prescription Practice. Three hours. Second semester. Compounding of prescriptions and a practical study of incompatibilities. Lectures and laboratory work. Prerequisite, course 58. Spencer.

52.—General Review of Pharmacy. Two hours. Second semester. A synoptic review of the essentials of pharmacy, chemistry, and materia medica. Havenhill.

53.—Drug-store Management. One hour. Second semester. A lecture course with collateral reading relating to the legal and business problems confronting the retail pharmacist.
Sayre, Havenhill, Spencer, and invited lecturers.

54.—Library Work. One hour. Second semester. Specially designed to familiarize the student with pharmaceutical literature; will include exercises in indexing and reviewing. Sayre.

55.—Manufacture of Artificial Fruit Essences and Other Compound Ethers. Two hours. Either semester. Sayre.

56.—Thesis. Five hours. Second semester. Original research in one of the subjects connected with the pharmaceutical profession. An outline of the work should be presented to the Dean by the first of the second semester.

Philosophy and Psychology.

Professors: TEMPLIN, HOLLANDS (Chairman of Department), HUNTER.
Assistant Professor: ROSENOW.
Instructors: ALMACK, MAUPIN (Summer Session).

EQUIPMENT. This department occupies a suite in the east wing of the Administration Building, including classrooms, a library held jointly with the Mathematics Department, and the psychology laboratory. The department library includes some 4,000 volumes, 3,500 of which are on the shelves of the reading room for ready reference by students. The laboratory has fourteen rooms equipped both for class work and research.

ADVICE CONCERNING CHOICE OF COURSES. PSYCHOLOGY. Psychology 1*a* is a prerequisite to all other courses in that subject. Psychology 1*b* should accompany this course, if possible. In certain advanced courses 1*b* is a prerequisite.

The following grouping of courses is suggested to meet the needs of special interests among the students:

Business and personnel efficiency interests: Psychology 54, 55 and 56.

Premedical interests: Psychology 51, 52, 54 and 55.

General biological interests: Psychology 2, 51, 52 and 56.

Social science interests: Psychology 50, 52, 54, 55 and 56.

Educational interests: Psychology 50, 53, 54, 55, 56, 57 and 66.

Purely psychological interests: Psychology 2 and 50 offer a preliminary survey of the chief topics of normal human psychology. Psychology 67 should round out the major's work in the senior year. Psychology 68 and 69 offer the qualified undergraduate an opportunity to work out some problem in research.

PHILOSOPHY. The systematic courses in philosophy are 74, 75, 83, and 84. These courses, supplemented by 70 and 71, will supply the student of reflective interests with the outline of a general theory of reality and conduct.

Many students will, however, be interested in philosophy principally because of the light it throws upon other subjects. The following suggestions are made to assist such students in their choice of courses:

Interests in scientific method: Philosophy 12, 74, 80.

Interest in a general theory of nature: Philosophy 10, 75.

Social science interests: Philosophy 82, 83, 84.

Historical, literary or scientific interest in the history of ideas: Philosophy 70, 71, 72, 73.

Religious and theological interests: Philosophy 70, 71, 72, 73, 74, 75, 76, 82, 84.

MAJOR REQUIREMENTS. Students majoring in this department may do their work primarily either in psychology or in philosophy. If philosophy is the major interest, at least two psychology courses must be completed. If psychology is the major interest, at least two philosophy courses must be completed. Other elections will be determined by the special interests and purposes of the student.

In satisfying the minimum College requirement of thirty hours in the major *group*, students may, in exceptional cases, offer a maximum of ten hours credit in courses outside of this group. These outside courses must be approved by an instructor in the major subject, and must be chosen from certain allied subjects in the following departments:

For Psychology: Anatomy, education, physics, physiology, sociology, zoölogy.

For Philosophy: English, economics, ancient languages, mathematics, physics, physiology, romance, sociology, zoölogy.

Graduate Work. Candidates for the master's degree whose major subject is philosophy, must have completed the equivalent of eight hours credit in undergraduate courses in the subject. At least fifteen hours of the thirty hours credit required for the degree must be in strictly graduate work. Six to ten hours credit will be allowed for thesis. The library is supplied with the standard editions of the classical philosophers, a good selection of the recent literature, and the representative periodicals in English, French, and German.

Graduate students in psychology must present at least fifteen hours of undergraduate psychology before receiving one of the higher degrees. Of the thirty hours graduate work required for the master's degree, from six to ten will be allowed for a suitable thesis. The library and laboratory equipment for this science is ample for the pursuit of a limited number of standard researches.

Courses numbered below 100 are taught on a strictly graduate basis where this is justified by the number of graduate students enrolled in them.

PSYCHOLOGY.

COURSES FOR SOPHOMORES.

1*a*.—General Psychology. Three hours credit. Both semesters and the first term of summer school. A general survey of the fields of psychology, with a careful study of the field of normal human adult psycholology. It is required for admission to other psychology courses and to the School of Education. Elementary courses in animal biology and physics are valuable antecedents. It is recommended that 1*b* accompany this course. Hunter, Rosenow, Almack.

1*b*.—General Psychology Laboratory. Two hours credit. Both semesters and the second term of summer school. Experiments supplementary to 1*a*, which must accompany or precede this course.
Hunter, Rosenow, Almack, Maupin.

2.—Sensory Processes. Three hours credit. Second semester. Two hours lecture and two hours laboratory by appointment. An examination of the chief fields of sensation and perception. Hunter.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—Attention, Learning and Thought. Three hours credit. First semester. Laboratory work by appointment will occupy about one-third of the course. Courses 1*b* and 2 are recommended as antecedents.
Rosenow.

51.—Animal Behavior. Three hours credit. First semester. Vertebrate behavior is emphasized. The topics discussed are: tropisms, instincts, sensory discrimination, and higher capacities. Laboratory work by appointment will occupy about one-third of the course. Hunter.

52.—Abnormal Psychology. Three hours credit. Second semester. The phenomena of sleep, dreams, hypnosis, hysteria, insanity and psychical research will be reviewed. The explanatory theories of Freud, Janet, Prince and others will be studied. Rosenow.

53.—The Normal and Delinquent Child. Two hours credit. First semester. The attempt will be made to state and develop the psychological principles which underlie the development of the human child into the adult. Emphasis will be placed on the study of the delinquent child. Standard authors will be reviewed critically. Rosenow.

54.—Mental Tests. Three hours credit. First semester. Psychological tests will be discussed both from the clinical point of view and from that of quantitative science. The attempt will be made to give to the student an adequate understanding of such of the concepts of modern statistics as are believed to be essential to a critical evaluation of mental tests. About one-third of the course will be devoted to actual testing. Rosenow.

55.—Social Psychology. Three hours credit. Second semester. Social instincts and emotions, the psychology of social influence, and the self. Given in alternate years with course 56. (Given in 1921-'22.) Hunter.

56.—Instinct and Emotion. Three hours credit. Second semester. A critical and expository treatment of the fundamental modes of acting and feeling. Given in alternate years with course 55. (Not given in 1921-'22.) Rosenow.

57.—Psychology of Learning. Two hours credit. Second term of summer school, 1921. A study of habit formation and memory in animals and human beings. Economical methods of learning will be stressed. Maupin.

66.—Advanced Psychology of Learning. Two hours credit. Second semester. A study of the literature and experiments of memory and habit formation. A few typical experiments will be performed. Prerequisites, courses 1*b*, 2, and 50. Hunter.

67.—Principles of Psychology. Three hours credit. Second semester. A consideration of the history and problems of psychology. Prerequisites, 1*b*, and six other hours of psychology. Hunter.

68.—Advanced Psychology I. Two to five hours credit. First semester, and in the summer school. This course provides for the individual or group study of special topics by advanced students. The subject will be determined by the desires of the students. Prerequisite, the consent of the instructor. Hunter, Rosenow, Almack.

69.—Advanced Psychology II. Two to five hours credit. Second semester. A continuation of course 68, but not necessarily preceded by it. Prerequisite as for 68. Hunter, Rosenow, Almack.

COURSES FOR GRADUATES ONLY.

101.—Seminar in Mental Tests. Two to five hours credit. Second semester. Special topics, in the selection of which the interests of the students will be consulted. Prerequisite, course 54 and the consent of the instructor. Rosenow.

102.—Advanced Problems in Vision. Two to five hours credit. First semester. An intensive study of the phenomena of vision with experimental demonstration of the factors which influence such phenomena. Prerequisite, course 2 and the consent of the instructor. Almack.

PHILOSOPHY.

COURSES FOR SOPHOMORES.

10.—Introduction to Philosophy. Two hours credit. Both semesters. A brief introductory survey, presenting the general nature of philosophical problems and of the relations of philosophy to science, religion and art. Hollands.

11.—Main Currents of Modern Thought. Three hours. Second semester. An untechnical examination of some of the philosophically significant ideas which have influenced literature and discussion during the past century. Prerequisite for sophomores, course 10. Hollands.

12A.—Elementary Logic. Two hours credit. Both semesters. A beginning course in the processes of reason when engaged in the search for truth, the testing of assertion, or the demonstration of fact. Welton's "Groundwork of Logic" is used as a text. The chief purpose of the course is to provide the student with practical drill in accurate thinking. Templin.

12B.—Elementary Logic. Three hours credit. Both semesters. The same as the foregoing, course 12A, with the additional hour devoted to a

more detailed study of the methods employed in scientific investigation. This course is designed especially for students of science. Templin.

13.—Elementary Ethics. Two hours credit. Second semester. A simple discussion of the facts of human life and conduct as they are presented by experience as well as by science, history and art. The moral value of various forms of conduct and the motives and conditions leading to them will be considered. Especial attention will be given to practical questions arising in the life of the student. Templin.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

70.—History of Philosophy I. Three hours credit. First semester. The development of philosophy, its relations to general culture, scientific theory, education, politics, and religion. The work of the first term will ordinarily cover ancient philosophy from Thales to Plotinus, with special reference to Plato and Aristotle. Open to all juniors and seniors. Hollands.

71.—History of Philosophy II. Three hours credit. Second semester. A continuation of course 70. Medieval and modern philosophy, from St. Augustine to the present. Hollands.

72.—Philosophical Classics I. Two hours credit. First semester. This course furnishes an opportunity for the study of some of the works important in the history of philosophy. The authors read vary with succeeding terms. Must be preceded or accompanied by course 70, which it is intended to supplement. Hollands.

73.—Philosophical Classics II. Two hours credit. Second semester. A continuation of course 72. Must be accompanied or preceded by course 71, which it supplements. Hollands.

74.—The Theory of Knowledge. Three hours credit. First semester. The subject of the course is the problem of truth, with special reference to contemporary idealism, pragmatism, and realism. Prerequisite, five hours credit in the department. Hollands.

75.—Metaphysics. Three hours credit. Second semester. Some typical tendencies and problems of contemporary thought will be examined and discussed in connection with the positive development of a theory of reality. Prerequisite, course 74. (Not given in 1921-'22.) Hollands.

76.—The Philosophy of Religion. Two hours credit. Second semester, and the first term of the summer session. After a preliminary examination of some of the theories concerning the origin and development of religion, in connection with the anthropological and psychological data, this course will consider some of the problems common to religion and philosophy. Prerequisite, five hours credit in the department. (Given in 1921-'22.) Hollands.

80.—Advanced Logic. Two hours credit. Second semester. A continuation of the elementary courses in logic, by one of which it must be preceded. A critical examination of the methods employed by scientists in making their discoveries will constitute a large part of the course. (Not given in 1921-'22.) Templin.

81.—Æsthetics. Two hours credit. First semester. A psychological and philosophical examination of the nature of the beautiful and the comic. The beauty of nature as well as that of the fine arts will be analyzed and its significance determined. Templin.

82.—Ethics of Vocations and Professions. Two hours. First semester. A study of the ethical opportunities and responsibilities involved in typical occupations. Among the callings considered are those of skilled and unskilled labor, engineer, director of industry and capital, farmer, merchant, banker, public official, scientist, teacher, journalist, lawyer, physician, and clergyman. Primarily for juniors. Templin.

83.—Ethics of Economics and Government. Two hours credit. First semester. An inquiry into the ethical significance of the more important

theories and principles now under discussion in the fields of economics and political science. Illustrations will be drawn from current affairs and attempts will be made to determine their ethical bearings. Primarily for seniors. Templin.

84.—Ethical Theory. Three hours credit. Second semester. This course undertakes a critical examination into the psychological foundations of human conduct, a review of the historic ethical theories, and the development of a satisfactory ethical system. Primarily for seniors. Templin.

COURSES FOR GRADUATES.

150.—Philosophical Seminar. Five or ten hours credit. First semester, by appointment. Opportunity will be given graduate students to continue in a more exhaustive manner the study of any of the subjects offered in the College courses, and to engage in original investigation. The work will be arranged to suit the special needs of individual students and will be under the immediate supervision of some instructor in the department.

151.—Philosophical Seminar. Five or ten hours credit. Second semester, by appointment. A continuation of the preceding course.

152.—Philosophy of the State. Three hours credit. Second semester, by appointment. A critical examination of the metaphysical principles implied in social and political organization, with especial reference to the philosophical theories which have influenced the development of the modern state. Open to graduate students in the historical and social sciences, by arrangement with the instructor. Hollands.

Physical Education.

Professor: Naismith (Head of Department).
Associate Professor: Bacon.
Assistant Professor: Patrick.
Instructors: Steger, Allen, Cline.

Advice as to Choice of Courses. The courses listed as exercises are designed primarily to secure health, recreation, and physical skill.

Course 20 is intended to teach the best methods of keeping the body at its highest efficiency, and of caring for it in emergencies.

Courses 50-58 are designed for the training of those who wish to become physical directors, coaches, managers, or any combination of these. Those looking forward to this work should take, in their freshman and sophomore years, at least one course in each of the following: anatomy, physiology, physics, chemistry, and psychology.

All freshmen are required to take some form of exercise at least three times, and sophomores twice, per week. An election from the listed courses is permitted according to the needs and wishes of the student.

A physical and medical examination is given to every student on entrance, and is used to determine the kind and amount of exercise best adapted for the individual. Abnormalities and conditions which affect the efficiency of the student will be pointed out; and, in so far as possible, he will be assisted in removing them.

Communications from parents or family physicians regarding the health of the student will be welcomed and will be of material assistance in directing his activities.

COURSES OF EXERCISE FOR MEN.

Exercises 1 and 2 are required of all freshmen. Exercises 3 and 4 are required of all sophomores. Exercises 5 to 10 are open, without credit, to College students, or may, by the direction of the instructor, be substituted for the preceding exercises.

EXERCISE 1.** First semester, M. W. F. First half: recreative games and sports. Second half: calisthenics, apparatus, and swimming.

EXERCISE 2.** Second semester, M. W. F. First half: apparatus, swimming, and indoor games. Second half: outdoor games, track and field sports, and advanced swimming.

EXERCISE 3. First semester, Tu. Th. First half: indoor games, aquatics. Second half: mass defensive work.

EXERCISE 4. Second semester, Tu. Th. First half: competitive defensive work, exhibitions, contests. Second half: playground activities.

EXERCISE 5. First semester, Tu. Th. Leaders' class. Advanced calisthenics; tumbling and apparatus work; leading squads and conducting group games. Open to any who are qualified.

EXERCISE 6. Second semester, Tu. Th. Leaders' class. Continuation of Exercise 5.

EXERCISE 7. First half of first semester. Football, freshman and varsity to which sophomores are eligible.

EXERCISE 8. Second half of first semester. Basketball, freshman and varsity, to which sophomores are eligible.

EXERCISE 9. Second half of first semester. Track, freshman and varsity, to which sophomores are eligible.

EXERCISE 10. Second semester. Continuation of course 9.

EXERCISE 11. Second half of second semester. Baseball, freshman and varsity, to which sophomores are eligible.

EXERCISE 12. The swimming pool is open for men Tuesday, Wednesday, Friday and Saturday. Instruction is given to those who cannot swim, and rescue work is illustrated.

COURSES OF EXERCISE FOR WOMEN.

Students will not be permitted to engage in strenuous exercises that are beyond their development or that are likely to injure them, but will be encouraged to take part in the games that are adapted to benefit them.

Students not strong enough to take the regular class work will be given work of such a nature as to meet their special needs.

A regulation gymnasium costume is required, which may be purchased after reaching the University. Gymnasium shoes with leather soles must be worn in the gymnasium, and may be purchased in Lawrence. The dressing rooms are provided with ventilated steel lockers, shower baths, and hair dryers. There is a woman attendant.

Advanced students may elect any of the forms of exercise in which they are particularly interested.

EXERCISE 1.** First semester, M. W. F. Calisthenics, wands, dumbbells, pulley weights, elastic exercises, folk dances and gymnastic games.

EXERCISE 2.** Second semester, M. W. F. Continuation of course 1. Prerequisite, course 1, or its equivalent.

EXERCISE 3. First semester, Tu. Th. Swedish gymnastics, folk dancing, esthetic and rhythmical exercises; Indian clubs. Prerequisite, course 2. Required of sophomores.

EXERCISE 4. Second semester, Tu. Th. A continuation of course 3. Prerequisite, course 3. Required of sophomores.

EXERCISE 5. First semester, Tu. Th. Advanced gymnastics, esthetic dancing, Swedish work, and games. Prerequisites, courses 1 to 4, or their equivalents.

EXERCISE 6. Second semester, Tu. Th. A continuation of course 5.

EXERCISE 7. Both semesters. Corrective gymnastics, arranged for those students who need special forms of exercise for correction of bodily defects.

SWIMMING. The swimming pool is used by the women students on Monday and Thursday. All students are advised to learn to swim.

BASKET-BALL. Regular practice is held, but organized teams may play at any time when the floor is unoccupied. Interclass games will be held at the regular hour.

TENNIS. There are five courts on South Field reserved for the women students.

FIELD HOCKEY. On Friday the classes in exercises 2 and 3 may substitute hockey for regular work. Class and other teams may be organized, and have regular hours for practice on South Field. Hockey sticks and balls are provided by the University.

Volley ball, indoor baseball, and other games may be played whenever the field is unoccupied and when groups of students select a time.

HYGIENE.

20.—HYGIENE.** Required of all freshmen, men and women. Weekly lecture.

FOR JUNIORS AND SENIORS.

50.—KINESIOLOGY. Three hours credit. First semester. A study of the human body as a mechanism; the muscles demanded and developed by exercise; muscles required in different forms of athletics; corrective exercises; massage. Prerequisite, Elementary Anatomy. Naismith.

51.—PHYSIOLOGY OF EXERCISE. Two hours credit. Second semester. A study of the effects of exercise on the various systems of the body; effect of strain; feats of endurance; hygienic and recreative exercises; methods of development. Should be preceded by Physiology I or II. Naismith.

52.—ANTHROPOMETRY. Two hours credit. Second semester. Physical, functional, and medical examination; tabulation and the use of the data of examination; the making of charts and diagrams and their use. Should be preceded by Anatomy I and Physiology I or II. Naismith, Bacon.

55.—PRINCIPLES OF GYMNASTICS I. Two hours credit. First semester, Tu. Th. The development of modern gymnastics and their application to schools and colleges; analysis of exercises and drills. Prerequisite, freshman and sophomore courses or their equivalent. Patrick, Steger.

56.—PRINCIPLES OF GYMNASTICS II. Two hours credit. Second semester, M. W. F. A continuation of course 55. Patrick, Steger.

57.—THEORY OF ATHLETIC COACHING AND OFFICIATING AT MAJOR GAMES I. Two hours credit in the College. A course designed for the preparation of teachers who are called upon to handle athletics in the high schools. Cline.

58.—THEORY OF ATHLETIC COACHING AND OFFICIATING AT MAJOR GAMES II. Two hours credit. Second semester, Tu. Th. A continuation of course 57. Allen, Cline.

59.—PHYSICAL DEVELOPMENT OF THE CHILD. Three hours credit. Second semester, M. W. F. A study of the influence of heredity, nutrition, rest, exercise, training, curve of growth, effects of development on habits and character. Naismith.

97.—TEACHERS' COURSE IN PHYSICAL EDUCATION. Two hours credit. First semester. Laboratory hours by appointment. A study of the principles of play, the classification of games, showing the grade for which each is adapted; and an analysis of the different games, showing the principles involved, and the attributes developed. The methods used in coaching and officiating, the locating, equipping, and organizing of playgrounds. Naismith.

97*a*.—Senior Teaching in Physical Education. Hours to be arranged. An analysis of gymnastic movements, showing their adaptation to the different grades; and methods of combining these into drills, devising drills for special occasions and to suit varying conditions; organizing and conducting classes; and observation of methods by visitation and practice teaching with selected classes. Steger.

Physics and Astronomy.

Professor: Kester.
Associate Professors: Rice, Alter.
Assistant Professor: Stimpson.
Instructor: Brown.
Assistant Instructors: Elvey, Long, Stranathan.

Equipment. The department occupies Blake Hall. The lecture rooms, laboratory and research rooms of the building are well supplied with water and gas and with various electrical circuits; the laboratory and research rooms are provided with piers free from vibration. A well-equipped shop and the services of an instrument maker are available for the construction of apparatus needed for special work. The equipment of apparatus for demonstration and regular laboratory work and for special investigation is good and is being increased constantly by well-chosen additions.

The physics library contains a fine collection of standard treatises, both elementary and advanced. American, English, German, French, and Italian journals of the science are at hand, with bound volumes back twenty-five to forty years; the files of the more important journals have been extended back from seventy to ninety years. The published transactions and proceedings of a large number of the important physical societies of the world add notably to the value of the library for use in special fields of investigation.

The material equipment in astronomy consists of a six-inch telescope, made by Alvin Clark & Sons, with equatorial clock-drive and a micrometer eye-piece; a two-inch terrestrial telescope on a portable altazimuth mounting; one two-inch and one three-inch transit instrument; a sextant; a spectroscope for attachment to the six-inch telescope; a fine comparator for photographic plate measurements; two chronometers, one a break-circuit instrument; two chronographs; a twenty-inch celestial globe; 600 astronomical slides; star charts, atlases, maps, drawings, etc. In addition, the equipment in physics is available for demonstrations and for laboratory work. A temporary observatory, with class rooms, and additional apparatus was added in 1919.

The astronomical library is unusually complete, containing complete sets of *The Astronomical Journal, The Observatory, Monthly Notices, Popular Astronomy, Astrophysical Journal,* and most of the volumes of *Bulletin Astronomique,* and *Astronomische Nachrichten.*

Advice as to Choice of Courses. *Physics.*—The courses in physics are arranged to give, first, a general survey of the whole subject in the elementary and general courses (2, and 3 and 4); second, a more intensive study of the well-defined fundamental parts of the science in the courses 50 to 53 (with appropriate laboratory courses 55 to 57); and third, an opportunity to enter the more special fields in the courses 58 to 61. Courses 3 and 4 (general physics), or their equivalents, are necessary for enrollment in any other course in physics. They are open to all students of the College. Courses 50 to 65 are open to juniors and seniors and to graduate students. Courses 50, 51, 52 and 53, with accompanying laboratory courses, should all be taken by students making physics their major, and courses 58, 60 and 61 may be added. Courses

53, 58 and 60 do not presuppose the calculus. Students expecting to do advanced work in physics should obtain as early as practicable a working knowledge of the calculus. A reading knowledge of German and French is desirable for those who elect the advanced courses and is essential for graduate students. Members of the department are glad to confer with students who intend to major in physics, and with those who intend to teach this science in high schools, as to the choice of courses best adapted to their needs.

Astronomy.—Students wishing only a general knowledge of the subject are advised to take only Astronomy 10, 11, and 83. The other courses are designed for students majoring in astronomy, other physical sciences or mathematics.

PHYSICS.

1.—Elementary Physics. Offered only by correspondence; in twenty-four assignments, three hours credit.

2.—The Development of Physics. Five hours credit. First semester. Lectures, recitations, and laboratory work. The arrangement of topics is such as to trace the growth of fundamental ideas. Considerable attention will be given to recent tendencies. (The course does not duplicate high-school physics. It may not be counted in fulfillment of entrance requirements of the School of Medicine.) Prerequisite, Plane Geometry. Laboratory fee, $1. Kester.

3*a*.—College Physics. Mechanics, sound, and heat. Three hours credit. First semester and alternate summer sessions (omitted summer session of 1921). (Offered also by correspondence in twenty-four assignments.) Lectures and recitations. Prerequisites, Elementary Physics, or Elementary Chemistry, and Plane Trigonometry. Course 3*a* should be accompanied by 4*a*. Kester.

3*b*.—College Physics. Light and electricity. Three hours credit. Second semester, and alternate summer sessions (offered summer session of 1921). (Offered also by correspondence in twenty-four assignments.) A continuation of course 3*a*. Prerequisite, course 3*a*. Course 3*b* should be accompanied by 4*b*. Kester.

4*a*.—College Physics Laboratory. Mechanics, sound, and heat. Two hours credit. First semester, and each summer session. Accompanied by or preceded by 3*a*. Credit in this course is dependent upon credit in 3*a* or its equivalent. Fee, $1.50. Brown, Stranathan.

4*b*.—College Physics Laboratory. Light and electricity. Two hours credit. Second semester, and each summer session. Coördinate with 3*b*, with the same prerequisites. Course 4*b* must be accompanied or preceded by 3*b*. Credit in this course is dependent upon credit in 3*b* or its equivalent. Fee, $1.50. Brown, Stranathan.

5*a*.—Physics for Medical Students. Mechanics, sound and heat. Four hours credit. First semester. Three recitations and one laboratory period. Prerequisites, Elementary Physics or Elementary Chemistry, and some knowledge of trigonometry. Laboratory fee, $1. Staff.

5*b*.—Physics for Medical Students. Light and electricity. Four hours credit. Second semester. Two recitations and two laboratory periods. A continuation of course 5*a*. Prerequisite, Physics 5*a*, or its equivalent. Laboratory fee, $1.50. Staff.

7*a*.—General Engineering Physics. Mechanics and heat. Five hours credit. Each semester, four hours class, two hours laboratory. Experimental lectures, recitations, and problems. Prerequisites, Plane Trigonometry, and some knowledge of analytical geometry and calculus. First semester, M. E. Rice and other instructors; second semester, E. F. Stimpson and other instructors.

7*b*.—General Engineering Physics. Electricity, sound and light. Five hours credit. Each semester, four hours class, two hours laboratory. A continuation of course 7*a*. First semester, E. F. Stimpson and other instructors; second semester, M. E. Rice and other instructors.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—Mechanics and Heat. Three hours credit. First semester. Lectures and recitations. Prerequisites, a year's work in general physics, and calculus. Kester.

It is recommended that this course be followed by Mathematics 50, Analytical Mechanics, three hours, second semester.

51.—Light and Radiant Energy. Three hours credit. Second semester. Prerequisites, a year's work in general physics, and calculus. Offered in alternate years. (Offered in 1921-'22). Rice.

52.—Electricity. Three hours credit. First semester. Lectures, recitations, and problems. Prerequisites, a year's work in general physics, and calculus. Rice.

53.—Conduction of Electricity Through Gases. Three hours credit. Second semester. Prerequisite, a year's work in general physics. Offered in alternate years. (Not offered in 1921-'22). Kester.

Courses 50, 51, 52, and 53 are designed to form a two-year cycle for theoretical treatment of the essentials of the subject matter of physics. The cycle is offered especially for juniors and seniors who are taking their major in physics. Either year of it is acceptable as a minor for graduate students who are working for the master's degree with their major in another department. An opportunity is offered in the laboratory courses 55 to 57 for experimental work which shall supplement to any desired extent the theoretical development of a given branch of the subject.

54.—Radio Theory. Three hours credit. First semester, by appointment. A study of the fundamentals of wireless telegraphy. Prerequisite, a course in general physics. Some use is also made of calculus. Rice.

55.—Optics Laboratory. Two to four hours credit. Second semester, by appointment. Prerequisite, a year's work in general physics. Fee, $2 to $4. Rice.

56*a*.—Electrical Measurements I. One and one-half to four hours credit. Either semester, by appointment. Direct-current measurements. Prerequisite, a year's work in general physics. Fee, $1.50 to $4. Rice.

56*b*.—Electrical Measurements II. One and one-half to four hours credit. Either semester, by appointment. Alternating-current measurements. Prerequisite, course 56*a* or its equivalent. Fee, $1.50 to $4. Rice.

57.—Gas Conduction Laboratory. Conduction of electricity through gases, and radioactivity. Two or three hours credit. Second semester, by appointment. Prerequisite, course 53 or equivalent. Fee, $2 or $3. Kester.

Courses 55, 56 and 57 are coördinate with 50, 51, 52 and 53, with the same prerequisites, and supplement them from an experimental point of view.

58.—Temperature Control and Measurement. Three hours credit. Second semester. This course will treat, mainly in laboratory, the subjects of the maintenance of constant temperatures, high and low; the various methods of measuring temperatures and of standardizing instruments, such as the platinum resistance thermometer, the thermoelectric couple, the pyrometer. Offered in alternate years. (Offered in 1921-'22). Fee, $2. Kester.

59.—Radio Laboratory. Two to four hours credit. First semester, by appointment. Must be preceded by or accompany course 54. An experimental study of the production of oscillations, measurement of the quantities involved and methods of reception in wireless telegraphy. Rice.

60.—Optical Instruments. Three hours credit. Second semester. This course is coördinate with 51, treating the theory of light only in so far as it relates to applied optics. Offered in alternate years. (Not offered in 1921-'22.) Rice.

61.—Alternating and Oscillating Currents. Three hours credit. Second semester, by appointment. Lectures, recitations, and problems. A continuation of course 52, dealing with the mathematical theory of alternating and oscillating currents and the propagation of varying electric currents in wires. Prerequisites, course 52 and some work in course 56, or equivalent, and a good working knowledge of calculus. Offered in alternate years. (Offered in 1921-'22.) Rice.

63*a*.—Physics Colloquium. One hour credit. First semester, by appointment. The members and the advanced students of the department meet once a week to report on researches published in the journals of the science and on the progress of original investigations carried on by members of the colloquium. Staff.

63*b*.—Physics Colloquium. One hour credit. Second semester, by appointment. A continuation of course 63*a*. Staff.

65.—Elementary Acoustics. One hour credit. Second semester, by appointment. A course of twenty lectures, with demonstrations, upon the scientific basis of harmony. Given in alternate years. (Not offered in 1921-'22.) Stimpson.

COURSES FOR GRADUATES.

100.—Graduate Laboratory. Two to five hours credit. Either semester, by appointment. Kester, Rice.

101.—Theoretical Mechanics. Six hours credit. Three hours throughout the year, by appointment. Lectures, with a problem hour each week. Prerequisites, course 50 or its equivalent, and another course of the same grade. Offered in alternate years. (Offered in 1921-'22.) Kester.

102.—Theory of Heat and Thermodynamics. Four hours credit. Two hours throughout the year, by appointment. Lectures and problems. A development of Gibbs's ideas of the thermodynamic potentials and of equilibrium in systems containing several components in various phases. Prerequisites, courses 50 and 51, or 52 and 53, or equivalents. Offered in alternate years. (Offered in 1921-'22.) Kester.

103.—Theory of Electricity. Six hours credit. Three hours throughout the year, by appointment. Lectures and problems. Prerequisites, course 52 or its equivalent, and another course of the same grade. Offered in alternate years. (Not offered in 1921-'22.) Kester.

104.—Advanced Optics. Four hours credit. Two hours throughout the year, by appointment. Lectures and problems. A development of the electromagnetic theory of light, of the Abbe theory of optical instruments, etc. Prerequisites, course 51 or its equivalent, and another course of the same grade. Offered in alternate years. (Not offered in 1921-'22.) M. E. Rice.

(Courses 101, 102, 103, and 104 together form a two-year cycle, developing the fundamental parts of physics in a rigorous and detailed manner. Other courses, covering more special [in some cases newer] topics, are listed below.)

105.—Election Theory. Four hours credit. Two hours throughout the year, by appointment. Theory of electromagnetic mass and of conduction of electricity through metals. Prerequisites, Physics 50 and 51, or 52 and 53, or equivalents. Offered in alternate years. (Offered in 1921-'22.) Kester.

106.—Oscillatory Electric Currents and Electromagnetic Waves. Three hours credit. Second semester, by appointment. Lectures and problems, giving the principles which underlie wireless telegraphy and

telephony. Prerequisites, course 52 or its equivalent, another course of same grade, and some differential equations. Offered in alternate years. (Not offered in 1921-'22.) M. E. Rice.

107.—Research and Thesis. Three to ten hours credit. Either semester. Students who are carrying on original investigations (either experimental or theoretical) in physics will register in this course.
Staff.

114.—Fourier's Series and the Potential Function. Six hours credit. Three hours throughout the year, by appointment. Development of functions in Fournier's series, with application to the solutions of problems in physics. Introduction to spherical harmonics. The potential function with applications to problems in electricity. Prerequisites, Physics 50 or Mathematics 50, Mathematics 51 and 55, or equivalent.
M. E. Rice, Ashton.

ASTRONOMY.

10.—Descriptive Astronomy. Four hours credit. Each semester and summer session. Three lectures, with recitation sections one hour, by appointment. An elementary course serving as an introduction to the subject. Alter.

11.—Observational Astronomy. Two hours credit. Each semester and summer session. Stress is laid on methods which may be carried on without the aid of large instruments, and which can be continued by the student independently. Astronomy 10 must accompany or precede this course, which is the laboratory part of Descriptive Astronomy. One evening and one afternoon a week. Alter.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

82.—Spherical and Practical Astronomy. Six hours credit. Three hours, throughout the year, by appointment. Transformation of coordinates, time, sextant, transit, refraction. Prerequisites, Descriptive Astronomy, and Trigonometry. Alter.

83.—History of Astronomy. Three hours credit. First semester, by appointment. A lecture course in which the material is drawn from various sources. Latern slides will be used freely. Alter.

84.—Introduction to Astrophysics. Three hours credit. Second semester, by appointment. A study of the principles, methods and instruments employed in investigating the physical conditions of celestial bodies. Prerequisites, Descriptive Astronomy, and a year's work in general physics. Alter.

85.—Method of Least Squares. Three hours credit. First semester, by appointment. A study of the theory of errors and of the accuracy of observations. Alter.

86.—Theory and Practice of Interpolation. Three hours credit. Second semester, by appointment. Practical work in mechanical differentiation and integration, especially applied to the computation of physical problems which are otherwise very difficult. Alter.

87.—Theoretical Astronomy. Ten hours credit. Five hours, throughout the year, by appointment. This course will involve a great deal of computation. Alter.

88.—Vector Analysis. Three hours credit. First semester, by appointment. The study of directed quantities, of the algebra concerned, and of the applications to physical problems. Alter.

89.—Vectorial Mechanics. Three hours credit. Second semester, by appointment. Alter.

COURSES FOR GRADUATES.

120.—Advanced Astronomy. Any one of the following: Orbit computation; celestial mechanics; special perturbations; general perturbations. These courses will involve a great deal of mathematical computation. Hours and credit to be arranged. Alter.

Physiology, Hygiene, and Pharmacology.

Professor: STOLAND (Chairman of Department).
Assistant Professors: REED, WELKER.
Instructors: WALLING, KORB.
Demonstrator: ISENBERGER.
Assistant Instructors: ANDERSON, BROWN.

CHOICE OF COURSES—PREREQUISITES. Courses 1 and 2 are intended for students who desire some knowledge of physiology as a part of their general education, but are unable to devote as much time to the study of the physical and biological sciences as is desirable to the proper pursuit of the advanced courses in physiology.

Students who desire to select physiology as their major subject should take as much work as possible in chemistry, physics and zoölogy during their freshman and sophomore years. Their major requirements may be satisfied by a selection from the following courses: 1, 2, 50, 51, 52, 53, 61, 62, 63, 70 and 71. Students preparing to teach elementary physiology and hygiene should include general bacteriology and histology in their selection of courses. Course 50 in biochemistry may be applied as part of the work required to fill the major in physiology.

Courses 70 and 71 are intended primarily for medical students, but are open to College students majoring in allied sciences.

COURSES FOR FRESHMEN AND SOPHOMORES.

1.—ELEMENTARY PHYSIOLOGY. Five hours credit. Both semesters. A study of the properties of living matter, blood circulation, respiration, digestion, absorption, metabolism, and excretion.
Walling, Reed, Stoland, Isenberger, Korb.

2.—ELEMENTARY PHYSIOLOGY. Five hours credit. Second semester. Continuation of course 1. A study of muscle, nervous system, special senses and the glands of internal secretion. Reed, Isenberger.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—PHYSIOLOGY OF THE MECHANISMS OF NUTRITION. Five hours credit. First semester. A course intended for students who have had some preparation in chemistry and biology. Not open to students who have had Physiology 1. Stoland.

51.—PHYSIOLOGY OF MOVEMENT AND SENSATION. Five hours credit. Second semester. A course dealing with the physiology of muscle and nerve, the central nervous system and special senses. General physics and a course on the structure of the nervous system are highly desirable antecedents. Not open to students who have had Physiology 2.
Stoland.

52.—ADVANCED HYGIENE. Three hours credit. Both semesters and second term of summer session. Designed to meet the needs of all students interested in public health as a matter of general education. Includes certain special topics for prospective teachers and public-welfare workers. Reed.

53.—INDUSTRIAL HYGIENE. Two hours credit. Second semester. Primarily intended for engineering and medical students and those interested in industrial welfare work. Designed to make the student acquainted with the special application of hygienic factors to industrial conditions. Reed.

61.—EXPERIMENTAL PHYSIOLOGY. Three hours credit. Either semester. Two laboratory periods and one hour conference per week, by appointment. A course intended to familiarize the students of physiology with the laboratory method of experimentation. Reed.

62.—Physiology of the Organs of Internal Secretion. Three to five hours credit. Second semester; hours by appointment. A study of the organs of internal secretion and their relations to the body activities. Stoland.

63.—Special Problems in Physiology. Two to seven hours credit. Both semesters and summer session; hours by appointment. A course intended for students who wish to pursue special laboratory work or investigation, either independently or in conjunction with members of the staff. Stoland, Reed.

70.—Physiology of Muscle, Nerve, Blood, Circulation, and Respiration. Five hours credit. Second semester and first term of summer session. Required of first-year medical students. Open to College and graduate students having sufficient preparation. Stoland, Reed, Isenberger.

71.—Physiology of the Central Nervous System, the Senses, the Digestive Tract, Secretion, Absorption, Metabolism, Internal Secretion, Excretion, and Temperature Regulation. Five hours credit. First semester and second term of summer session. Prerequisites: Physiology 70 and Neurology. Required of second-year medical students. Open to College and graduate students. Stoland, Reed, Isenberger.

72.—Pharmacology. (*At Rosedale.*) Three hours credit. Second semester. The physiological actions of the more important drugs employed in therapeutics, their uses, and methods of administration. Prerequisites: Physiology 70 and 71. Required of second-year medical students. Welker.

73.—Pharmacology. (*At Rosedale.*) Two hours credit. Second semester. Laboratory instruction illustrating many of the underlying principles considered in course 72. Must be accompanied by 72. Required of second-year medical students. Welker, Anderson.

FOR GRADUATES.

100.—Research in Physiology. Three or more hours credit. Both semesters and summer session. Stoland.

101.—Seminar. Two hours credit. A study of the current literature dealing with physiological research.

102.—Research in Pharmacology. Credit to be arranged, the amount depending upon the time given to the subject. Both semesters. Stoland, Welker.

Political Science.

Professor: Moore.
Assistant Professors: Chubb, Stutz.
Lecturer and Consultant in Municipal Government: Fassett.

Equipment. Instruction in this department is conducted by informal lectures, class discussions, the use of textbooks and the University library, and by investigations of the actual workings of government. The library is adequately equipped for all undergraduate work, and, in conjunction with the specialized library of the Kansas League of Municipalities, permits of special research and investigation. The official publications of the state of Kansas and those of the United States are complete and the library receives the scientific journals published in the field of government and politics. The collections of the departments of history, economics and sociology are in constant use by the students of political science.

Advice as to Courses. It is necessary for students who expect to take work in this department to elect first the general course in American gov-

ernment. This course should be followed by the courses in state and municipal government in order to round out the student's general knowledge of the American system. The advanced courses fall into three general divisions: Descriptive government and politics, public law, and political theory. Major students in the department are requested to confer with the instructors in regard to the sequence of courses. The study of politics is of importance to several general classes. For the student who does not wish to specialize in political science the work in this department is designed to give the general comprehensive knowledge of government, particularly American government, which is essential to every citizen in a democracy. To students who expect to specialize in the allied social sciences, in law, or in the commercial or foreign field, a knowledge of the organization and administration of the government is almost indispensable. Since civics, sociology and economics are now being taught extensively in the high schools, preparation of teachers in the field of social sciences is quite necessary. Finally, the public service is calling for trained men.

Training for Public Service. The professionalizing of many government positions in the national civil service and the demand for trained men in state and municipal service is giving a new importance to all the social sciences. This demand will increase as the public service grows in interest and importance. The last few years have witnessed great progress in this direction. This department is coöperating with the departments of economics and sociology in preparing a complete scheme of courses which aims to prepare students for positions in the public service, such as consuls, experts in administration, legislative reference work and bill drafting, and city managers. The scheme also provides for training for service with quasi-public organizations, such as city clubs, other civic organizations, chambers of commerce, and bureaus of municipal research. Students who desire to enter any of these specialized fields should consult the department faculty at the earliest opportunity.

COURSES FOR SOPHOMORES.

10.—American Government. Five hours credit. First and second semesters. A general and systematic study of the development and structure of American government, both national and local, with emphasis on actual workings; also serves as a foundation for other courses in political science. Moore, Chubb.

12.—Comparative Government. Three hours credit. Second semester. An examination of the constitutions and political systems of the more important states of the world, with recent changes considered. Prerequisite, course 10. Chubb.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.

50.—Municipal Government. Three hours credit. First semester. A study of the government of the American city, its development and structure, its relation to the state, the various types of organization, and the participation of the people in city affairs. Comparisons also made between American and European cities. Prerequisite, course 10. Stutz.

51.—Municipal Administration. Two hours credit. Second semester. The functions and administration of the city. Such topics as streets, city planning, the utility problems of water, lighting and transportation, fire protection, municipal finance, police, will be discussed. Prerequisite, course 50. Stutz.

52.—American State Government. Three hours credit. Second semester. The original principles of state government in the United States, the development of state constitutions, the problems of modern state government, and an analysis of the various projects for reorganization and reform. Prerequisite, course 10. Moore.

53.—Political Parties. Two hours credit. First semester. The place of the party system in government, the development of party machinery, party abuses, and remedial legislation. Prerequisite, course 10. Chubb.

55.—The Judiciary. Two hours credit. First semester. A study of the organization and jurisdiction of the judiciary, state and national; power of the courts to declare laws unconstitutional, and judicial influence on social and economic legislation. Prerequisite, course 10. Moore.

56.—International Law. Three hours credit. Second semester. A study of the principles of international public law. A liberal use is made of court decisions and other public documents in this course. Prerequisite, course 10. Moore.

57.—Elementary Law. Three hours credit. First semester. A study of the fundamental principles of the common law, designed to give familiarity with common legal terms and court procedure. Such subjects as torts, contracts, real and personal property are emphasized. Prerequisite, course 10. Moore.

59.—Principles of Political Science. Three hours credit. First semester. The fundamental principles of political science, together with a critical examination of the theories of sovereignty, political institutions, the nature of the state, and the legitimate functions of the state. Prerequisite, course 10. Chubb.

60.—History of Political Theories. Two hours credit. Second semester. A review of ancient and mediæval political philosophy, followed by a study of modern political theories, including American. Prerequisite, eight hours of political science. Moore.

COURSES FOR GRADUATES.

104 and 105.—Seminar. Three to five hours credit. First and second semester. Individual investigation under the direction of the instructor. Subject to be selected. Moore.

Public Speaking.

Professor: MacMurray (Head of Department).
Instructor: Shinn.

Advice as to Choice of Courses. The University of Kansas participates in debates with the universities of Oklahoma, Colorado and Missouri. For these contests the courses in public speaking are designed to give preparation. Men desiring to win places on intercollegiate debating teams are advised to take as much of the work as possible, but especially to take courses 5 and 6. The course in the principles of argumentation, course 3 in rhetoric, is strongly advised as a preparation for course 5 in debating.

FOR FRESHMEN AND SOPHOMORES.

1.—Oral Interpretation I. Two hours credit. Both semesters. The purpose of this course is to enable the student to attain to some proficiency in the art of oral interpretation of literature. In connection with the practice work upon the platform, the student will be given such points of theory as are necessary in regard to the development and use of the voice and in regard to proper platform deportment. MacMurray, Shinn.

2.—Oral Interpretation II. Two hours credit. Both semesters. This course will be a continuation of course 1, and will afford a more advanced study of the art of oral interpretation. Prerequisite, course 1. MacMurray, Shinn.

5.—Debating I. Two hours credit. First semester. Practical work in brief drawing and the handling of evidence, together with presentation in actual debate. It is recommended that course 3 in rhetoric be taken before or in connection with this course. Shinn.

6.—Debating II. Two hours credit. Second semester. This course is a continuation of course 5, and affords an opportunity for more advanced and intensive study of debating methods. Prerequisite, course 5. Shinn.

FOR JUNIORS AND SENIORS.

50.—Extempore Speaking I. Two hours credit. Both semesters. Weekly addresses based on prepared outlines. Careful preparation of material is required; the plan of speech is made in advance, but the choice of language is left for the moment of speaking. MacMurray, Shinn.

51.—Extempore Speaking II. Two hours credit. Both semesters. A continuation of Extempore Speaking I; same methods, but work is of more advanced nature. Attention given to solution of special problems in public speaking. Prerequisite, course 50. MacMurray or Shinn.

54.—Advanced Public Speaking. Two hours credit. First semester. In addition to the regular class instruction, special instruction will be given in preparing lectures and recitals for the public platform. A carefully prepared production of some length will be required of each student by the end of the semester. Prerequisites, courses 1 and 2. MacMurray.

60.—Dramatic Art I. Two hours credit. First semester. Training in the interpretation of the drama and instruction in stage technic. Standard and classic plays will be studied and presented, and each student will be assigned definite roles to interpret. MacMurray.

61.—Dramatic Art II. Two hours credit. Second semester. A continuation of course 60. The work will be similar in character but of a more advanced nature. Prerequisite, course 60. MacMurray.

Romance Languages and Literatures.

Professors: Galloo (Head of Department), Neuen Schwander.
Associate Professor: Stanton.
Assistant Professors: Mahieu, Hess.
Instructors: Cate, Carman, Swanson, Towne, Rew, Salvan.

Equipment. The department of Romance languages and literatures possesses a collection of illustrative material consisting of several hundred photographs, stereopticon slides, maps, plans, plaster casts, etc., illustrating the history, architecture, life, and general culture of the Romance nations.

The Romance library of the University contains 4,130 volumes, which cover in a representative way the literary development of France, Italy, and minor Romance languages and dialects, from the earliest times to the present day. Thirty periodicals are received, which include all the important literary and philological journals devoted to the Romance languages.

Advice as to Choice of Courses. Students who wish to take a major in this field, should consult with the department before the end of their sophomore year.

A major in French includes, as prescribed work, courses 3, 4, 6, 7, 12, 53, 54 and six hours of French literature or linguistics, with additional courses to be suggested with a view to the vocations for which the students are fitting themselves.

Students intending to teach French should take, in addition to the required work in education, course 10 or course 11 in oral composition.

All students whose major is in French are advised to elect courses in Spanish and Italian, in mediæval and modern European history, and in the history of English literature. For a major in French and Italian, courses 21, 22, 23, 24, 26, and 80 are substituted for courses in French according to the preparation and needs of the students.

Graduate work in this department presupposes a fair acquaintance with Latin, with elementary Spanish and Italian, and a reading knowledge of German.

FRENCH.

1.—Elementary French. Five hours credit in the College, Schools of Engineering, Fine Arts, and Pharmacy. Both semesters. Grammar tax. Neuen Schwander, Stanton, Hess, Cate, Carman, Swanson, Towne, Rew.

1*c*.—Elementary French (Fine Arts). Three hours credit. First semester. Required of regular students of voice in the junior year. The elements of French grammar, with emphasis on correct pronunciation and diction. Cate.

2.—French Reading and Grammar. Five hours credit in the College, Schools of Engineering, Fine Arts, and Pharmacy. Both semesters. Reading of simple prose texts; dictation; speaking, elementary composition. Prerequisite, course 1.
Neuen Schwander, Stanton, Mahieu, Hess, Cate, Carman, Swanson, Towne, Rew.

2*c*.—Elementary French (Fine Arts). Three hours credit. First semester. Required of regular students of voice in the junior year. The elements of French grammar, continued. Reading of easy French prose and simple lyric poems. Cate.

3.—Modern French Writers. Three hours credit in the College, the Schools of Engineering, Fine Arts, and Pharmacy. Instead of this course, engineering students are advised to take 5. Both semesters. Translation and reading of works of Mérimée, George Sand, Victor Hugo, Anatole France, and René Bazin. Prerequisite, course 2.
Neuen Schwander, Stanton, Mahieu, Cate, Carman, Swanson, Salvan.

4.—French Composition. Two hours credit in the College, the Schools of Engineering, Fine Arts, and Pharmacy. Both semesters. Written exercises for grammatical review; free composition; oral exercises; dictation. Must be preceded or accompanied by course 3.
Stanton, Mahieu, Cate, Carman, Swanson, Salvan.

5.—Scientific French. Three hours credit in the College, the Schools of Engineering and Pharmacy. First semester. Open to students who are specializing in the sciences and who need an accurate and ready understanding of scientific French. Prerequisites, courses 1 and 2.
Carman.

The courses listed below are given credit in the College:

6.—French Prose and Poetry. Three hours credit. Both semesters. Reading of representative works of the seventeenth, eighteenth and nineteenth centuries. Prerequisites, courses 3 and 4; may be taken in the same semester as course 4. Neuen Schwander, Hess.

7.—French Composition. Two hours credit. Both semesters. A continuation of course 4, intended to provide additional practice in writing and speaking French. Hess, Salvan.

8.—Corneille. Two hours credit. First semester. Reading of his greatest tragedies. Must be preceded by 3 and 4, and should be by 6.
Mahieu, Salvan.

9.—Racine. Two hours credit. Second semester. Reading of his greatest tragedies. Must be preceded by 3 and 4, and should be by 6 and 8. Mahieu, Salvan.

10.—Oral French Composition I. Two hours credit. Three recitations a week, first semester. This course is conducted entirely in French, and aims to give idiomatic and fluent use of the spoken language. Regular attendance at the meetings of the Cercle Français is expected of the students who elect this course. Must be preceded by 3 and 4, and preceded or accompanied by either 6 or 8, or their equivalents.
Mahieu, Salvan.

11.—Oral French Composition II. Two hours credit. Three recitations a week, second semester. Continuation of course 10.
Mahieu, Salvan.

12.—Moliere. Three hours credit. First semester. Careful study of the more important plays, rapid reading of the others; reports in French by members of the class. Should be preceded by 6, or its equivalent. Galloo.

13.—French Composition, Written and Oral. Two hours credit. First semester. Practice in writing and speaking French. Prerequisite, 4 or 7. Stanton, Mahieu.

14.—Advanced French Composition. Two hours credit. Second semester. Translation, original composition, and practice in speaking French. Prerequisite, 7 or 13. Galoo, Mahieu.

COURSES FOR JUNIORS, SENIORS AND GRADUATES.*

50.—The French Element in English. Three hours credit. Second semester. A study of the influence of French upon the vocabulary and syntax of the English language, with especial reference to Norman and post-Norman periods. The course will be conducted in English.
Neuen Schwander.

51.—Elementary French. Five hours undergraduate credit only. First semester. For juniors and seniors who are beginning French. The aim of this course is to give some insight into the fundamental principles of language, together with a more comprehensive acquaintance with French and wider reading than in the usual elementary courses for freshmen and sophomores. Galloo, Cate.

52.—French Reading and Grammar. Five hours undergraduate credit only. Second semester. A continuation of course 51.
Galloo, Cate.

53.—History of Early French Literature. Three hours credit. First semester. From the earliest times to the classic period. Lectures, recitations, and private readings. Stanton, Mahieu.

54.—History of Modern French Literature. Three hours credit. Second semester. From the beginning of the classic period to the present day. Lectures, recitations, and private readings.
Stanton, Mahieu.

55.—French Literature of the Seventeenth Century. Two hours credit. First semester. A study of the development of French literature from Malherbe to the end of the reign of Louis XIV. Stanton.

56.—French Literature of the Eighteenth Century. Two hours credit. Second semester. Special attention is paid to the life and works of Voltaire; study of Montesquieu, Rousseau and the encyclopedists; the dramatists. Neuen Schwander, Stanton.

57.—The Romantic School I. Three hours credit. First semester. A study of the rise of romanticism in France and of its characteristic products in poetry, the novel, and the drama. Lamartine, A. de Vigny, and A. de Musset. Galloo, Mahieu.

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* Except 51, 52 and 88*a*, for which no graduate credit is given.

58.—The Romantic School II. Two hours credit. Second semester. A continuation of course 57, devoted chiefly to Victor Hugo's Works. Galloo, Mahieu.

59.—The Literary Movement in the Second Half of the Nineteenth Century I. Three hours credit. First semester. The reaction against romanticism, the Parnassiens, realism and naturalism. The reaction against the scientific spirit; idealism and symbolism. The rise and growth of the new literary criticism. Galloo.

60.—The Literary Movement in the Second Half of the Nineteenth Century II. Three hours credit. Second semester. Continuation of course 59. Galloo.

61.—Development of the French Novel I. Two hours credit. First semester. A survey of the novel in the seventeenth and eighteenth centuries. Galloo.

62.—Development of the French Novel II. Three hours credit. Second semester. The novel in the nineteenth century, with special reference to the origin and growth of realism and naturalism. Galloo.

63.—The Earlier French Drama. Three hours credit. First semester. Drama of the Middle Ages and the Renaissance. Lectures, recitations and written reports. Mahieu.

64.—The Modern French Drama. Three hours credit. Second semester. A study of the development of the drama in France from the seventeenth century to the present day. Lectures, recitations, and written reports. Galloo, Mahieu.

65.—Old French. Two hours credit. First semester. An introduction to French philology. Reading of the Extraits de la Chanson de Roland (Gaston Paris), with special attention to the phonetic changes and the inflections. Galloo.

66.—Old French. Two hours credit. Second semester. A continuation of course 64. Chrestomathie de l'ancien français (Constans). Galloo.

88.—Teachers' Course in French. See School of Education.

88*a*.—Senior Teaching in French. See School of Education.

COURSES FOR GRADUATES.

100 and 101.—Seminar. Five hours credit. Each semester. Research course for advanced students, who will be given an opportunity, under the immediate supervision of the department, to carry on investigation in the field of Romance linguistics or literature. Galloo, Neuen Schwander.

102.—Colloquial and Mediæval Latin I. Two hours credit. First semester. The development of Latin as a spoken language from the *sermo cotidianus* of classical antiquity, through its popular and scholastic use in the early Middle Ages, to its final disintegration in vulgar speech, with constant reference to the phonology and the morphology of the Romance languages as exhibited in the earliest written forms. Neuen Schwander.

103.—Colloquial and Mediæval Latin II. Two hours credit. Second semester. A continuation of course 102. Neuen Schwander.

104.—Old French. Three hours credit. First semester. Phonology and morphology of old French, with some discussion of syntax. Le Pèlerinage de Charlemagne à Jérusalem, Aucassin et Nicolette. Must be preceded by courses 165 and 166 or their equivalents. Galloo.

105.—History of the French Language. Three hours credit. Second semester. Its rise from Low Latin; the additions from other sources; its growth and modifications. Galloo.

106.—Mediæval French Literature. Three hours credit. Second semester, by appointment. From the first literary monuments to the Renaissance. Mahieu.

107.—French Literature of the Sixteenth Century. Two hours credit. First semester, by appointment. The Renaissance in French literature. The beginning of classicism. The Pléiade. Stanton.

108.—Moliere. Three hours credit. First semester, by appointment. Study of Molière; his life and surroundings, his plays—their sources and influence. One or more essays will be written, preferably in French. Galloo.

ITALIAN.

Students are advised to take, as preparation, courses 1 and 2 or 51 and 52 in French.

21.—Elementary Italian I. Three hours credit. In the College or the School of Fine Arts. First semester, Grammar, and easy reading. Stanton, Swanson.

22.—Elementary Italian II. Continuation of course 21. Three hours credit in the College or the School of Fine Arts. Second semester. Grammar, composition, and reading of works of Manzoni, Edmondo de Amicis and other modern writers. Stanton, Swanson.

23.—Italian Reading and Grammar. Two hours credit. First semester, by appointment. Grammatical exercises accompanying the reading and translating of works of Goldoni, Fogazzaro, Carducci, Pascoli. Prerequisite, course 22. Stanton.

24.—Writers of Cinquecento. Two hours credit. Second semester, by appointment. Reading of selections from Machiavelli, Cellini, Ariosto, Tasso, etc. D'Ancona and Bacci's Manuale della letteratura italiana, vols. I, II, and III. Prerequisite, course 23. Stanton.

COURSE OPEN TO JUNIORS, SENIORS AND GRADUATES.

80.—Dante. Three hours credit. First semester, by appointment. The Divina Commedia; its relation to the age, and its importance in the history of the Italian language and literature. Prerequisite, course 23. Stanton.

COURSES FOR GRADUATES.

120.—The Italian Theater in the Eighteenth Century. Two hours credit. Second semester. Lectures and reports. The Commedia dell' Arte. Reading of selected comedies of Goldoni and tragedies of Alfieri. Careful study of a few typical works. Prerequisite, course 24, or its equivalent. Stanton.

121.—Early Italian. Three hours credit. Second semester. Monaci's Crestomazia italiana; d'Ancona and Bacci's Manuale della letteratura italiana, vol I; Rossi's Storia della letteratura italiana, vol 1. Prerequisite, course 80, or its equivalent. Stanton.

PROVENCAL.

110.—Provençal. Two hours credit. First semester, by appointment. Grandgent's Provençal Phonology and Morphology, Appel's Provenzalische Chrestomathie and Schultz-Gora's Altprovenzalisches Elementarbuch. Neuen Schwander.

111.—Provençal. Two hours credit. Second semester, by appointment. A continuation of course 110. Neuen Schwander.

RUSSIAN.

95.—Russian Language I. Three hours credit. First semester.

96.—Russian Language II. Three hours credit. Second semester.

Sociology.

Professors: Blackmar, Smith, ————.
Associate Professors: Helleberg, ————.
Assistant Professor: ————.
Instructor: Mann.

Equipment. Instruction in the Department of Sociology is conducted chiefly by lectures, reading, recitation and investigation, aided in the elementary courses by textbooks. The University Library is well equipped for the study of sociology. All of the principal magazines treating of the work of this department are on file in the reading room for the use of the students. In addition there are charts, maps and outlines. In the natural history museum is a valuable collection of specimens for the study of anthropology and ethnology. A limited amount of investigation of social and racial conditions is being carried on.

Advice as to Courses. Elements of sociology as found in course 1 or 50 is a prerequisite for all other courses of study and for all field work. At the beginning of the junior year students desiring to major in sociology should consult with an instructor in the department in regard to the choice of courses for the required major work.

The development of professional social work in this country opens up an attractive field for university men and women. The courses offered by this department are, therefore, of definite interest to those preparing to become workers in social settlements, secretaries of private charities, welfare secretaries in industries, staff sociologists in our state charitable and penal institutions, city superintendents of public welfare, recreation directors, and playground and social-center workers. Experience has demonstrated that the study of sociology is a valuable preparation for teaching. It is a prerequisite to many courses in education.

It is expected that the teaching corps for 1921-'22 will include one specialist who will direct the work in social surveys, community organization, and social engineering, and direct the field work of all those who are preparing for special social service. His purpose will be not only to train students for social service, but to make the Department of Sociology directly serviceable to the communities of Kansas.

Suggested courses for training for particular lines of social service.

I. *Training for child welfare and public-health service:* Nos. 52, 56, 63, 64, 65, 67, 53, 66, 72. Field work two to six hours.

II. *Training for social work in the industries:* Nos. 51, 55, 57, 63, 65, 70, 72. Field work, two to six hours.

III. *Training in preparation for teaching:* Nos. 55, 56, 64, 67, 61, 2. Education Sociology (see Education), Teaching of Social Sciences (see Education). Practice Teaching, two to six hours.

IV. *Training for community work:* Nos. 52, 63, 70, 2, 64, 55, 65, 72. Field work two to four hours.

V. *Training for service in institutions:* 51, 52, 53, 58, 55, 66, 72, 67, 104 (graduate).

VI. *Training for the ministry, law, and medicine:* 56, 58, 54, 51, 55, 53, 63, 64. Field work, two to four hours.

COURSES FOR SOPHOMORES.

1.—Elements of Sociology. Five hours credit. Both semesters. A general course in the foundations and principles of sociology, including a study of the origin, evolution, structure, organization and activities of society. The course is especially arranged for those who have not previously studied sociology. Prerequisite to all courses except 50.

Mann, ————.

2.—Rural Sociology. Two hours credit. Second semester. A study of social conditions in rural districts and small towns. The agencies for social and economic betterment. The church and the schoolhouse as social centers. Political, social, and economic organizations. Smith.

COURSES FOR JUNIORS, SENIORS, AND GRADUATES.

50.—Elements of Sociology. Three hours credit. Both semesters. The same as course 1, except more difficult, and greater emphasis on pure sociology and social theory. Either 50 or 1 prerequisite to other courses. Blackmar.

51.—Principles of Applied Sociology. Three hours credit. Second semester. An application of the theories and principles studied in courses 1 and 50 to social activities. A special study of social energy and social waste, with methods of conservation of social energy and elimination of social waste. Smith.

52.—Social Pathology. Two hours credit. First semester. A general study of poverty, pauperism, unemployment, epilepsy, insanity, degeneracy, etc., and their causes, prevention, and cure. Conditions of the slums and rural population, housing of the poor, social maladjustment, occupational diseases, etc. Mann.

53.—Remedial and Corrective Agencies. Two hours credit. Second semester. Administration of charitable and correctional affairs; management of jails, reformatories, penitentiaries and institutions for defectives and dependents; housing of the poor. Each student is required to visit at least two social institutional and report on same. Mann.

54.—Public Opinion. Three hours credit. Second semester. A study of the origin and development of social control; public opinion and democracy; leadership and authority; phenomena of the public or ethnic mind; the relations of the individual and the group. Helleberg.

55.—Psychological Sociology. Three hours credit. Each semester. A study of the social self and the process of its development, together with applications to a variety of social problems, in order to establish a viewpoint and method for sociology and all the social sciences. Helleberg.

56.—The Family. Two hours credit. Second semester. The origin and growth of the family. The true family a biological, psychological and moral unity. Psychology of family life. Helleberg.

57.—Socialism. Two hours credit. First semester. The development of modern socialistic theories, including a study of French and German socialism. The development of the socialistic movement. Helleberg.

58.—General Anthropology. Two hours credit. First semester. The natural history of man. Probable origin and antiquity of man. Comparison with anthropoid apes. Men of the old Stone Age—Neolithic man. The beginnings of art and industry. Blackmar.

59—Ethnology. Two hours credit. Second semester. Origin of races and ethnic groups. Racial differentiation and development. Characteristics of ethnic society. The conflict and survival of races. Their geographical distribution. Influence of geographical and physical environment. Comparison of natural and civilized races. Sources of present-day race problems. Blackmar.

61.—Contemporary Society in the United States. Three hours credit. First semester. A general survey of the natural environment, population and its distribution, industrial and social groupings, and is designed through the study of current concrete social problems as a means of correlating the various sciences. Helleberg.

62.—Development of Social Theory. Five hours credit. Second semester. A rapid historical survey of social philosophy from Plato to

Comte, followed by a more detailed examination of current sociological theories. Primarily a graduate course, but open to seniors by permission of the instructor. Helleberg.

63.—Social Surveys. Three hours credit. First semester. The history of the social survey. The social survey as a method of social investigation and of social statistics. This course is designed not only to present the literature of surveys, but to give the student the principles and practice of social surveys. Smith.

64.—Urban Sociology. Two hours credit. First semester. A study of the population, conditions of life, and social problems in the modern city with special reference to American municipalities. This course is a special study of city problems for students preparing for social work. Smith.

65.—Immigration and Race Problems in the United States. Three hours credit. First semester. Causes of immigration. Changes in the character of immigration. Influence of recent immigration on social, political and economic conditions. Immigration laws of the United States. Revision of immigration laws. Blackmar.

66—Vital Statistics. One hour credit. Second semester, Wednesday. Vital statistics, social sanitation, movement of population in registration areas, mortality statistics, disease, etc. ———.

67.—Eugenics. Three hours credit. Second semester. A study of the agencies under social control that may improve or impair racial qualities, either mentally, morally, or physically. Organic evolution, genetics, or heredity is a prerequisite for this course. Zoölogy 4, 64 or 72 would be sufficient. Blackmar.

69.—Criminology. Two hours credit. First semester. Causes of crime. Development of methods in treatment of criminals. Penal institutions. Preventive measures. ———.

70.—Community Organization. Two hours credit. Second semester. A study of the problems involved in the organization of social agencies, with a critical study of methods followed in organizing social centers, civic leagues, federated and union churches, and similar organizations. This course is especially designed for teachers, ministers, and others expecting to direct the activities of their respective communities. Prerequisite, Social Surveys. Smith.

71.—Social Evolution. Two hours credit. Second semester. A study in the physio-psychic causes of social development. Social heredity. The origin and the perpetuation of social traits. Blackmar.

72.—Social Engineering. Three hours credit. First semester. Prerequisites, Social Surveys, and Community Organization. Social technology, with investigation, observation and direction of social groups and institutions, conducted by field director. ———.

COURSES FOR GRADUATES.

100.—Seminar of Sociology. Two to ten hours credit. Either semester, by appointment. This is a research course for advanced students. Applicants for admission to the seminar must satisfy the instructor of their preparation and ability to undertake original investigation. Each student may pursue a definite line of work under the direction of the instructors. Smith, Helleberg.

101.—Seminar of Social Investigation. Two to six hours credit. Either semester. Same as course 100; difference is in the nature of the investigation. Smith, Blackmar.

102.—American and European Charities. Five hours credit. By appointment. Research course. A study of charties administration in

the United States and some of the principal cities of Europe. Personal investigation of American charitable institutions, with special reference to methods of state control. ———.

103.—Preparation for Institutional and Social Service. Five hours credit. Second semester, by appointment. A study of the administration of charitable, penal, and social institutions. A research course in the library is supplemented by investigation of institutions by visitation. Lectures by experienced officials. Preparation for special positions. ———.

104.—Research Problems in Criminology. Five hours credit. Second semester, by appointment. The modern theories of criminality. Case-study of the life history of criminals. A critical analysis of methods of classification and reformation. ———

105.—Sociology and the Law. Five hours credit. First semester, by appointment. A sociological approach to the development of the law and its function in society; the relation of various codes to social activities; the contemporary efforts to create a scientific jurisprudence. ———.

106.—Development of Social Theory. Five hours credit. Advanced course. Helleberg.

Summer Session.

Write for special bulletin.

Zoology.

Professor: Allen (Head of Department).
Associate Professors: Baumgartner, Johnson, Robertson.
Assistant Professor: Nowlin.
Instructor (Technician): Smith.
Assistant Instructors: Bicknell, Reed, Sisson.

The department is in possession of ample facilities in the way of apparatus and laboratory material. There are representative types of marine animals from the Pacific and Atlantic coasts, as well as from Bermuda and Jamaica. Histological, cytological and embryological material of great variety has been provided. Microscopes, microtomes and other apparatus for even the most advanced work are at hand.

Advice Concerning Choice of Courses. Course 1 is designed as an introduction to the subject, and, so far as possible, gives a general survey of the animal kingdom. The character of the work is such as to lay particular stress upon training in the independent observation and correlation of facts. It is, therefore, a course which may be taken by those who wish merely to become acquainted with the methods of scientific work. As an elementary course it forms a basis for any advanced work, and is required for entrance into other courses, except 64.

Major Requirements. In the work counting towards a major, students must complete ten hours chosen from among the following courses: 51, 52, 53, 54, 55, and 71.

Suggested Courses Leading to Various Lines of Professional Work for Students Majoring in Zoölogy. It is assumed that many of the elementary courses shall have been taken in the high school. It is also assumed that a student may not, in every case, be able to take all courses here listed in a given group. It is desired, however, that the student take as many of them as his schedule permits.

I. FOR GENERAL ZOÖLOGIST.

Freshman-Sophomore. 1, Zoölogy; 3, Comp. Anatomy; 2, Gen. Morphology of Plants; 3, Plant Physiology, or 4, Plant Anatomy; 1, Elem. German; 2, German Grammar; 6, Parasitology; 3B, Scientific German; 1, Elem. French; 2, French Reading; 3*a*, Trigonometry; 2, College Algebra; 2, Inorganic Chemistry; 3, Inorganic Chem. and Qual. Analysis; 2, The Development of Physics, or 5*a*, Physics for Med. Students, and 6*a*, Physics for Med. Students II; 2, Geology (Elem.), and 3, Introd. Hist. Geology; 1*a*, Gen. Psychology; 1*b*, Gen. Psychology Lab.

Junior-Senior. 51, Mammalogy; 55, Embryology; 56, Paleontology, or 61, Vertebrates of the Past; 53, Histology, or 54, Cytology; 71, Protozoölogy, or 72, Genetics; 51, Quan. Analysis I; 61, Elem. Organic Chem.; 50, Biochemistry; 1, Animal Physiology, or 71, Med. Physiology I and Med. Physiology II; 50, Bacteriology; 11, Introduction to Philosophy, or 70, History of Philosophy; 50, Entomology.

II. FOR TEACHER OF BIOLOGY IN THE SECONDARY SCHOOLS.

Freshman-Sophomore. 1, Zoölogy, 4, Ornithology; 1, Living Plant, or 2, Gen. Morphology of Plants; 2, Aquatic Zoölogy; 6, Parasitology; 1, Elem. Physiology; 1, Gen. Chemistry; 2, The Development of Physics; 2, Elem. Geology; 3, Introd. Hist. Geology.

Junior-Senior. 55, Embryology; 51, Mammals; 53, Histology; 64, Heredity in Relation to Eugenics, or 72, Genetics; 61, Vertebrates of the Past; 50, Introd. Entomology; 1*a*, Psychology; 1*b*, Gen. Psychology Lab.; 50, Systematic Botany; 50, Elements of Sociology; 50, Bacteriology; 60, Agriculture (Botany); 60, Agriculture (Entomology).

III. FOR PROSPECTIVE MEDICAL STUDENTS.

Freshman-Sophomore. 1, Zoölogy; 3, Comp. Anatomy; 6, Parasitology; 2*a*, College Algebra; 3*a*, Plane Trigonometry; 1, Living Plants, or 2, Gen. Morphology of Plants; 2, Inorganic Chemistry; 3, Inorganic Chemistry and Qual. Analysis; 5*a*, Medical Physics I; 6*a*, Medical Physics II; 1*a*, Gen. Psychology; 1*b*, Gen. Psychology Lab.; 1, Elemen. German; 2, German Reading and Grammar; 3*b*, Scientific German; 1, Elem. French; 2, French Reading and Grammar.

Junior-Senior. 53, Histology; 54, Cytology; 55, Embryology; 71, Protozoölogy; 73, Zoölogical Problems; 51, Quan. Analysis I; 61, Elem. Organic Chemistry, or 61M, For Medical Students; 50, Biochemistry; 50, Bacteriology; 54, Special Methods in Bacteriology; 50, Elements of Economics; 52*a*, Sanitary Water Analysis; 74, Sanitary Science and Public Health Problems.

IV. FOR PARASITOLOGISTS AND PUBLIC-HEALTH WORKERS.

Freshman-Sophomore. 1, Zoölogy; 3, Comparative Anatomy; 6, Parasitology; 2, Inorganic Chemistry and Qual. Analysis; 2, General Morphology of Plants; 3, Plant Physiology; 1, Elem. Sociology; 1, Elem. French; 2, French Reading and Grammar; 1, Elem. German; 2, German Reading and Grammar; Scientific German; 1, Elements of Economics.

Junior-Senior. 54, Histology; 55, Embryology; 71, Protozoölogy; 73, Zoölogical Problems (Parasitology); 50, Bacteriology; 50, Entomology; 51, Quan. Analysis; 61, Elem. Organic Chemistry; 70, Medical Physiology I; 71, Medical Physiology II; 55, Algæ; 56, Fungi; 62, Plant Pathology; 54, Special Methods in Bacteriology; 58, Insects and Public Health.

V. FOR BIOLOGISTS IN GOVERNMENT SERVICE, FIELD NATURALISTS, ETC.

Freshman-Sophomore. 1, Zoölogy; 3, Comparative Anatomy; 4, Ornithology; 6, Parasitology; 5, Heredity; 1, German; 2, German; 3B, German; 1, French; 2, French; 2, Geology; 3, Introductory Hist. Geology; 1, Elem. Chemistry; 2, Gen. Morphology of Plants; 3, Plant Physiology.

Junior-Senior. 55, Embryology; 56, Vertebrate Paleontology; 71, Protozoölogy; 51, Mammals; 52, Mammalian Problems; 73, Zoölogical Problems (Mammals); 50, Entomology; 55, Taxonomy of Insects; 50, Systematic Botany; I, Animal Physiology; 6, Plant Ecology; 62, Plant Pathology; 50, Bacteriology.

VI. FOR EUGENIC FIELD WORKERS.

Freshman-Sophomore. 1, Zoölogy; 3, Comparative Anatomy; 1, Elementary German; 2, German Reading and Grammar; 3B, Scientific German; 1, Elementary French; 2, French Reading and Grammar; 1, Elements of Economics; 1*a*, General Psychology; 1*b*, General Psychology Lab.; 1, Elementary Physiology; 51, Introductory Human Anatomy; 1, Elementary Chemistry.

Junior-Senior. 55, Embryology; 64, Heredity in Relation to Eugenics; 72, Genetics; 73, Zoölogical Problems (5-10 hrs.); 50, Elements of Sociology; 52, Social Pathology; 58, Anthropology; 69, Criminology; 52, Abnormal Psychology; 52, Educational Measurement and Experiment; 59, Ethnology.

DESCRIPTION OF COURSES.

1. Elementary Zoölogy. Five hours credit. First and second semesters. Lectures, recitations, and laboratory work. Principles of animal biology and application to problems of human structure, function, development, heredity and evolution. Training in methods of scientific observation and interpretation. Fee, $2.50.
Allen, Johnson, Nowlin, Robertson, and assistants.

2.—Aquatic Zoölogy. Two hours credit. Second semester. Field and laboratory course dealing with physiology, structure and life cycles of protozoa, worms, and crustaceans. Attention is given to their relation to water supply, sewage disposal and other problems of sanitation. Prerequisites, Zoölogy I or equivalent. Fee, $1.50. Nowlin.

3.—Comparative Anatomy. Five hours credit. First semester. Primarily for medical students deficient in this work. Second semester, two sections. Structure and relations of the higher vertebrates. Lectures, assigned readings, and laboratory study of types. A course designed for premedical students, teachers and for those desiring general culture. Prerequisite, course 1 or equivalent. Fee, $3.
Baumgartner and assistants.

4.—Ornithology. Three hours credit. Second semester. The study of birds; identification; natural history; economic importance. Museum material, field, library, lectures, etc. Fee, $1.50. Johnson.

5.—General Heredity. Two hours credit. Both semesters. An introduction to the laws of heredity and variation in animals and man. The cellular basis and sex determination; the Mendelian law, and the relative importance of environment in problems of inheritance; principles underlying the origin of new races of animals; application to human society. Prerequisite, course 1 or equivalent. Fee, $1. Robertson.

6.—Parasitology. Three hours credit. Both semesters. Lectures and laboratory. The animal parasites of man. For premedical students and those interested in public-health problems. Prerequisites, Zoölogy 1 or equivalent. Fee, $2. Nowlin.

50.—Elementary Zoölogy. Five hours credit. First semester. Lectures, recitations, and laboratory work. Principles of animal biology and application to problems of human structure, function, development, heredity and evolution. Training in methods of scientific observation and interpretation. Fee, $2.50. Allen.

51.—Mammals. Three hours credit. First semester. Prerequisite, eight hours zoölogy or equivalent. Identification; life histories, economic aspects. Museum material, library, etc. Fee, $2. Johnson.

52.—Mammalian Problems. Two hours credit. Second semester. Prerequisite, course 51. Selected topics to suit the qualifications and interests of the student. Fee, $1.50. Johnson.

53.—Animal Histology. Five hours credit. First semester. Methods of preparation and a careful microscopic study of normal tissues. Prerequisite, courses 1 and 3, or equivalent. Fee, $3.50. Baumgartner.

54.—Cytology. Five hours credit. First semester. Structure and functions of the cell in development and inheritance. Cell division; cell differentiation; maturation of germ cells; sex determination; fertilization, parthenogenesis, etc., with emphasis on chromosomes and mitochondria. Training in tissue-culture methods and cytological technic. Prerequisite, ten hours zoölogy or equivalent. Fee, $3.50. Robertson.

55.—Embryology (Descriptive and Experimental). Five hours credit. Second semester. Normal development of frog, chick, and pig, and fundamental principles of embryonic development. Original research. Prerequisite, ten hours zoölogy or equivalent. Fee, $3.50. Allen.

56.—Vertebrate Paleontology. Five hours credit. Second semester. Evolution of vertebrates and anatomical modifications involved in the process. Museum studies, lectures, and readings. Unusual museum equipment. Prerequisite, ten hours zoölogy or equivalent. Geology 2 and 3 are recommended as preparation. Fee, $3.50. Allen.

57.—Evolution of Behavior. Three hours credit. Second semester. A course dealing with the evolution of behavior in relation to sense organs and the nervous system. Lectures, dissection, and experimentation. Nowlin.

58.—Histological Technic. Two hours credit. Second semester. A course designed to give training in the preparation of tissues for microscopical study. Prerequisite, ten hours of biology. Fee, $2. Baumgartner and Robertson.

60.—Animal Biology. Three hours credit. First semester. For students wishing to study general theories of animal biology beyond the point reached in the elementary course. Lectures, discussions, and assigned readings. Prerequisite, Zoölogy 1 or equivalent. Allen.

61.—Vertebrates of the Past. Two hours credit. First semester. A consideration of the various types of extinct animals; discussion of general processes of evolution through which the present forms of animal life have passed. Illustrated by the museum collection. Prerequisite, Zoölogy 1 or equivalent. Allen.

64.—Heredity in Relation to Eugenics. Three hours credit. First semester. An exposition of the biological laws underlying eugenics. One-half of the time is spent in study of the human traits and their inheritance by means of family pedigrees. For students of sociology, medicine, education, etc. Prerequisite, five hours of biological science. Fee, $1. Robertson.

71.—Protozoölogy. Five hours credit. First semester. Laboratory and lecture course, with instruction in the methods of technic. Special emphasis upon those forms which produce human disease. Prerequisite, ten hours of zoölogy or equivalent. Fee, $3. Nowlin.

72.—Genetics. Five hours credit. Second semester. A careful study of variation; inheritance of acquired characters; mutation; Mendelism; sex-linked inheritance, and the inheritance of secondary sexual characters; problems of evolution in the light of experimental breeding. Attention is given to the varieties of domesticated animals. Prerequisite, ten hours of zoölogy or equivalent. Fee, $3.50. Robertson.

73.—Zoölogical Problems. Three or five hours credit. Both semesters. For continuation of original research work begun in some preceding course. Under instructor under whom research was begun. Fee, $2.50 or $3.50. The Staff.

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THE

UNIVERSITY OF KANSAS

LAWRENCE

ERNEST H. LINDLEY, PH. D.
Chancellor

OFFICERS OF INSTRUCTION, DEGREES GRANTED, STUDENT ROSTER, ETC.

MARCH, 1921

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BOARD OF ADMINISTRATION.

Educational, Charitable, and Correctional Institutions.

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FOREWORD.

The annual catalog of the University of Kansas heretofore has contained about five hundred pages, and sometimes has proven confusing to persons who wish to see, at a glance, the essentials of the facilities, expenses, admission requirements, and description of courses offered by the institution. This has been true especially in the case of high-school young people who contemplate entering college. To meet the needs of those who may wish a briefer statement than that contained in a general catalog, the University of Kansas is issuing the current catalog in three sections. In Section I the reader will find, first, a brief statement concerning the government of the University, then, in order, a general account of the equipment, University organizations, admission requirements, examinations and reports of the various schools, fees and laboratory charges, living and rooming expenses, scholarships, etc., concluding with a brief survey of the scope and work of each School and Division.

Those who desire further information may send for Section II, devoted to description of courses, and Section III, containing a list of officers of instruction, register of degrees granted, and current rosters of students.

Copies of the three sections of the catalog are placed in the hands of superintendents and high-school principals of the state.

For other information address:

THE CHANCELLOR, OR
THE REGISTRAR,
LAWRENCE, KANSAS.

UNIVERSITY CALENDAR.

Academic Year, 1920-'21.

January 1, Saturday—Close of Christmas recess.
January 24 to 29, Monday to Friday, inclusive—Semester examinations.
January 31, Monday—Beginning of second semester; enrollment in classes.
February 1. Tuesday—Beginning of class work in all departments.
February 22, Tuesday, Washington's birthday—Legal holiday.
March 25 to 28, Friday to Monday, inclusive—Easter recess.
March 29, Tuesday—Beginning of second half-semester.
May 30 to June 3, Monday to Friday, inclusive—Semester examinations.
June 5, Sunday, 8 p. m.—Baccalaureate sermon.
June 6, Monday, 8 p. m.—Sigma Xi address.
June 7, Tuesday, 10:30 a. m.—Alumni address.
June 7, Tuesday, 8 p. m.—Chancellor's reception.
June 8, Wednesday, 10 a. m.—Commencement exercises.
June 13, Monday—Beginning of six-weeks Summer Session.
July 25, Monday—Beginning of four-weeks Summer Session.

Academic Year, 1921-'22.

September 12, 13, 14, Monday, Tuesday, Wednesday—Entrance examinations and registration, Fall Session.
September 13, 14, Tuesday, Wednesday—Enrollment in classes.
September 15—Beginning of class work in all departments.
September 16, Friday—General assembly and annual address, at 10 a. m.
November 14, Monday—Beginning of second half-semester.
November 23 to 26, Wednesday to Saturday, inclusive—Thanksgiving recess, beginning Wednesday noon.
Christmas Recess—Saturday, December 17, to Saturday, December 31, inclusive.
January 23 to 27, Monday to Friday, inclusive—Semester examinations.
January 30, Monday—Beginning of second semester; enrollment in classes.
January 31, Tuesday—Beginning of class work in all departments.
February 22, Wednesday, Washington's birthday—Legal holiday.
April 4, Tuesday—Beginning of second half-semester.
April 14 to 17, Friday to Monday, inclusive—Easter recess.
May 29 to June 2, Monday to Friday, inclusive—Semester examinations.
June 4, Sunday, 8 p. m.—Baccalaureate sermon.
June 5, Monday, 8 p. m.—Phi Beta Kappa address.
June 6, Tuesday, 10:30 a. m.—Alumni address.
June 6, Tuesday, 8 p. m.—Chancellor's reception.
June 7, Wednesday, 10 a. m.—Commencement exercises.
June 12, Monday—Beginning of six-weeks Summer Session.
July 24, Monday—Beginning of four-weeks Summer Session.

OFFICERS OF ADMINISTRATION.

THE UNIVERSITY.

ERNEST H. LINDLEY, Ph. D., Chancellor.
Room 103, Fraser Hall.
Hours: 10 a. m. to 12 m. and 2 to 4 p. m.

WILLIAM L. BURDICK, Ph. D., Vice President.
Room 206, Green Hall.
Hours: First semester, 11:30 a. m. to 12:30 p. m.; second semester, 9 to 10:30 a. m.

FREDERICK J. KELLY, Ph. D., Dean of Administration.
Room 119, Fraser Hall.
Hours: 10 a. m. to 12 m.

GEORGE O. FOSTER, A. B., Registrar.
Room 109, Fraser Hall.
Hours: 8 a. m. to 12 m. and 2 to 5 p. m.

ALBERTA L. CORBIN, Ph. D., Adviser of Women.
Room 114, Fraser Hall.
Hours: 9:30 to 11:30 a. m. and 2:30 to 4:30 p. m.

JOHN J. WHEELER, A. M., University Marshal.
Room 204, East Administration Building.
Hours: 9:30 a. m. to 12 m.

JOHN M. SHEA, Superintendent of Buildings and Grounds.
Room 201, Repair Shop.

THE SCHOOLS.

FRANK W. BLACKMAR, Ph. D., Dean of the Graduate School.
Room 101, East Administration Building.
Hours: 9:30 a. m. to 12 m.

JOSEPH G. BRANDT, Ph. D., Acting Dean of the College of Liberal Arts and Sciences.
Room 102, Fraser Hall.
Hours: 10:30 a. m. to 12 m.

PERLEY F. WALKER, M. M. E., Dean of the School of Engineering.
Room 112, Marvin Hall.
Hours: 9 a. m. to 12 m.

WILLIAM L. BURDICK, Ph. D., Chairman of Faculty, School of Law.
Dean's Office, Green Hall.

HAROLD L. BUTLER, A. B., Dean of the School of Fine Arts.
Room 111, Administration Building.
Hours: 9 a. m. to 12 m. and 2 to 5 p. m.

CARL A. PREYER, Mus. B., Associate Dean of the School of Fine Arts.
Room 113, Administration Building.

LUCIUS E. SAYRE, Ph. M., Dean of the School of Pharmacy.
Room 215, Chemistry and Pharmacy Building.
Hours: 10 to 11 a. m.

———, Dean of the School of Medicine.

MERVIN T. SUDLER, Ph. D., Associate Dean of the School of Medicine.
Tuesdays and Saturdays at Lawrence.
Mondays, Wednesdays, Thursdays and Fridays at Rosedale.

FREDERICK J. KELLY, Ph. D., Acting Dean of the School of Education.
Room 119, Fraser Hall.
Hours: 2 to 4 p. m.

THE DIVISIONS.

WILLIAM H. JOHNSON, A. M., Acting Director of Summer Session.
Room 121, Fraser Hall.
Hours: 11 a. m. to 12 m. and 3 to 4 p. m.

HAROLD G. INGHAM, A. B., Acting Director of University Extension.
Room 117, Fraser Hall.
Hours: 8 a. m. to 12 m. and 2 to 5 p. m.

FORREST C. ALLEN, D. O., Director of Athletics.
Room 203, Robinson Gymnasium.
Hours: 10 a. m. to 12 m.

———, Director of Libraries.

ERNEST H. LINDLEY, Ph. D., *ex officio* Director of Museums.
Room 103, Fraser Hall.
Hours: 10 a. m. to 12 m. and 2 to 4 p. m.

ARVIN S. OLIN, LL. D., Director of University Publications.

———, Director of State Service Work.

———, Director of University Surveys.

ARTHUR T. WALKER, Ph. D., Director of Vocations.
Room 112, East Administration Building.
Hours: 11:30 a. m. to 12:30 p. m. and 2:30 to 3:20 p. m.

OFFICERS OF INSTRUCTION.

ERNEST HIRAM LINDLEY, Chancellor of the University, and President of the Faculties.

B. A. Indiana, 1893; M. A. Indiana, 1894; Ph. D. Clark, 1897; Fellow, Clark, 1895-'97; Student, Universities of Jena, Leipzig, Heidelberg, 1897-'98; Graduate Student, Harvard University, 1904-'05; Instructor, 1893-'98; Associate Professor, 1898-1902; Professor of Philosophy and Psychology, Indiana, 1902-'17; Instructor, Summer School, Clark, 1896, 1899, 1901; Instructor, Summer Session, Columbia, 1907; President, University of Idaho, 1917-'20. Present position, 1920.

WILLIAM LIVESEY BURDICK, Vice President of the University, and Professor of law.

A. B. Wesleyan, 1882; A. M. Wesleyan, 1885; Ph. D. Chattanooga, 1884; LL. B. Yale, 1898; Professor of Law, Kansas, 1898-1916. Present position, 1916.

PROFESSORS.

EPHRAIM MILLER, Emeritus Professor of Mathematics and Astronomy.

A. B. Allegheny, 1855; A. M. Allegheny, 1858; Ph. D. Allegheny, 1895. Professor of Mathematics and Astronomy, Kansas, 1874-1910. Dean of the School of Arts, Kansas, 1895-1903.

EDGAR HENRY SUMMERFIELD BAILEY, Professor of Chemistry and Metallurgy, and Director of Chemical Laboratories.

Ph. B. Yale, 1873; Ph. D. Illinois Wesleyan, 1883. Instructor in Chemistry, Yale, 1873-'74; Instructor in Chemistry, Lehigh, 1874-'83. Present position, 1883.

ALEXANDER MARTIN WILCOX, Professor of Greek Language and Literature.

A. B. Yale, 1877; Ph. D. Yale, 1880. Assistant in Greek, Wesleyan, 1880-'83. Present position, 1885.

LUCIUS ELMER SAYRE, Dean of the School of Pharmacy, Professor of Pharmacy and Materia Medica.

Ph. G. Philadelphia College of Pharmacy, 1866; Ph. M. Philadelphia College of Pharmacy, 1896; B. S. Michigan, 1897. Instructor, Philadelphia College of Pharmacy, 1880-'85. Present position, 1885.

FRANK WILSON BLACKMAR, Dean of the Graduate School, and Professor of Sociology.

Ph. B. University of the Pacific, 1881; A. M. University of the Pacific, 1884; Ph. D. Johns Hopkins, 1889. Professor of Mathematics, University of the Pacific, 1882; Professor of History and Sociology, Kansas, 1889-'99; Dean of the Graduate School, 1897; Professor of Sociology and Economics, Kansas, 1899-1911. Present position, 1897.

CHARLES GRAHAM DUNLAP, Professor of English Literature.

A. B. Ohio Wesleyan, 1883; A. M. Ohio Wesleyan, 1899; Litt. D. Princeton, 1892. Assistant Professor of English Literature, Kansas, 1887; Associate Professor of English Literature, Kansas, 1889. Present position, 1890.

CARL ADOLPH PREYER, Associate Dean of the School of Fine Arts, and Professor of Piano and Composition.

Mus. D. Baker, 1909. Professor of Piano, Counterpoint, Canon and Fugue, Kansas, 1892-1915. Present position, 1915.

OLIN TEMPLIN, Professor of Logic, Ethics and Esthetics.

A. B. Kansas, 1886; A. M. Kansas, 1890. Instructor in Mathematics, Kansas, 1884; Assistant Professor of Mathematics, Kansas, 1886; Associate Professor of Philosophy, Kansas, 1890; Professor of Philosophy, Kansas, 1892. Dean of the College of Liberal Arts and Sciences, 1903-'20. Present position, 1892.

EDWIN MORTIMER HOPKINS, Professor of Rhetoric and English Language.

A. B. Princeton, 1888; A. M. Princeton, 1890; Ph. D. Princeton, 1894. Assistant Professor of English, Kansas, 1889; Associate Professor of English, Kansas, 1892. Present position, 1893.

FRANK HEYWOOD HODDER, Professor of American History and Political Science.

Ph. M. Michigan, 1883. Instructor in History and Economics, Cornell, 1885-'89; Assistant Professor of Economics, 1889-'90; Associate Professor of American History, 1891-'93. Present position, 1893.

ARTHUR TAPPAN WALKER, Professor of Latin Language and Literature, and Director of Vocations.

A. B. New York, 1887; A. M. Vanderbilt, 1892; Ph. D. Chicago, 1898. Professor of Latin and Greek, Juniata, 1888-'90; Professor of Latin and Greek, Emory and Henry. 1892-'93; Instructor in Latin, Chicago, 1894-'97. Present position, 1897.

WILLIAM CHASE STEVENS, Professor of Botany.

B. S. Kansas, 1885; M. S. Kansas, 1893. Assistant in Botany, 1889-'92; Associate Professor of Botany, 1892-'99. Present position, 1899.

ARVIN SOLOMON OLIN, Professor of Education, and Director of Publications.

A. B. Ottawa, 1892; A. M. Kansas, 1894; LL. D. Ottawa, 1915. Instructor in Pedagogy, Kansas, 1893; Associate Professor of Pedagogy, Kansas, 1894; Professor of Education, Kansas, 1899; Dean of the Summer Session, Kansas, 1913-'15; Acting Dean of the School of Education, Kansas, 1913-'14; Dean of the School of Education, Kansas, 1914-'15. Present position, 1899.

WILLIAM ALEXANDER GRIFFITH,[1] Professor of Drawing and Painting.

Academie Julien. Professor of Drawing and Painting, Washburn, 1893-'94; Instructor in Drawing, Washington, 1895-'97. Present position, 1899.

EUGENE GALLOO, Professor of Romance Languages and Literatures.

Academie de Paris, Brevet, 1881, Sorbonne, 1884; B. L. Michigan, 1892; A. M. Kansas, 1895. Assistant Professor of French, 1892; Associate Professor of French and Spanish, 1899-1900. Present position, 1900.

CHARLES SANFORD SKILTON, Professor of Organ, Theory of Music and Music History.

A. B. Yale, 1889. Dean of the School of Fine Arts, 1903-'15. Present position, 1903.

IDA HENRIETTA HYDE,[2] Professor of Physiology.

A. B. Cornell, 1891; Ph. D. Heidelberg, 1896. Associate Professor of Physiology, Kansas, 1899. Present position, 1905.

WILLIAM HAMILTON JOHNSON, Professor of Education, and Acting Director of Summer Session.

A. B. Kansas, 1885; A. M. Kansas, 1891. Professor of History and Pedagogy, Emporia State Normal, 1893-'96. Present position, 1905.

PERLEY F. WALKER, Dean of the School of Engineering, and Professor of Industrial Engineering.

B. M. E. Maine, 1896; M. E. Maine, 1900; M. M. E. Cornell, 1901. Instructor in Mechanical Engineering, Maine, 1896-1900; Professor of Mechanical Engineering, Maine, 1902-'05; Professor of Mechanical Engineering, Kansas, 1905-'13. Present position, 1913.

MERVIN TUBMAN SUDLER, Associate Dean of the School of Medicine, and Professor of Surgery.

B. S. Maryland Agricultural, 1894; M. S. 1897; Ph. D. Johns Hopkins, 1889; M. D. College of Physicians and Surgeons, Baltimore, 1901. Instructor in Anatomy, Johns Hopkins, 1900-'02; Instructor in Anatomy and Surgery, Cornell, 1902-'03; Dean of the Scientific Department, School of Medicine, Kansas, 1905-'11. Present position, 1911.

S. S. GLASSCOCK, Professor of Psychiatry.

M. D. Rush, 1887. Present position, 1905.

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1. Resigned, January 1, 1921.
2. Absent on leave.

ISADORE JULIUS WOLF, Professor of Internal Medicine.

M. D. Munich, 1887. Present position, 1905.

JAMES NAISMITH, Professor of Physical Education.

A. B. McGill, 1887; M. D. Gross Medical, 1898; M. P. E. Springfield Y. M. C. A. College, 1910. Instructor, Springfield Y. M. C. A. College, 1891; Associate Professor of Physical Education, Kansas, 1898. Present Position, 1906.

SAMUEL JOHN HUNTER, Professor of Entomology.

A. B. Kansas, 1893; A. M. Kansas, 1893. Assistant Professor of Entomology, Kansas, 1896; Associate Professor of Entomology, Kansas, 1899. Present position, 1906.

FRANKLIN E. MURPHY, Professor of Clinical Medicine.

M. D. Pennsylvania, 1893. Present position, 1907.

L. D. HAVENHILL, Professor of Pharmacy.

Ph. C. Michigan, 1893; Ph. M. Michigan, 1894; B. S. Kansas, 1903. Assistant Professor of Pharmacy, 1899-1906; Associate Professor of Pharmacy, 1906-'08. Present position, 1908.

FREDERICK EDWARD KESTER, Professor of Physics.

M. E. Ohio, 1895; A. M. Cornell, 1899; Ph. D. Cornell, 1905. Assistant in Physics, Ohio, 1895-'98; Instructor in Physics, Ohio, 1899-1901; Assistant Professor of Physics, Ohio, 1901-'03, 1905-'07; Associate Professor of Physics, Ohio, 1907-'09. Present position, 1909.

GEORGE CARL SHAAD, Professor of Electrical Engineering.

B. S. Pennsylvania State, 1900; E. E. Pennsylvania State, 1905. Instructor in Electrical Engineering, Wisconsin, 1902-04; Assistant Professor of Electrical Engineering, Wisconsin, 1904-'06; Assistant Professor of Electrical Engineering, Massachusetts Institute of Technology, 1906-'07; Associate Professor of Electrical Engineering, Massachusetts Institute of Technology, 1907-'09. Present position, 1909.

SAMUEL JAY CRUMBINE, Professor of Preventive Medicine.

M. D. Cincinnati, 1889. Present position, 1910.

HAMILTON PERKINS CADY, Professor of Chemistry.

A. B. Kansas, 1897; Ph. D. Kansas, 1903. Assistant Professor of Chemistry, 1899-1905; Associate Professor of Chemistry, 1905-'11. Present position, 1911.

LYMAN L. UHLS, Professor of Psychiatry.

M. D. Rush, 1884. Present position, 1911.

ANDREW L. SKOOG, Professor of Neurology.

M. D. Northwestern, 1902. Present position, 1911.

LINDSEY STEPHEN MILNE, Professor of Medicine.

M. B., Ch. B., M. D. Edinburgh, 1908. Present position, 1912.

HERBERT ALLAN RICE, Professor of Mechanics and Structural Engineering.

C. E. Ohio, 1897. Instructor in Civil Engineering, Lehigh, 1902-'05; Assistant Professor of Civil Engineering, Kansas, 1905-'06; Associate Professor of Civil Engineering 1906-'13. Present position, 1913.

BENNETT MILLS ALLEN, Professor of Zoölogy and Vertebrate Paleontology.

Ph. B. De Pauw, 1898; Ph. D. Chicago, 1903. Instructor in Zoölogy, Wisconsin, 1903-'08; Assistant Professor of Zoölogy, Wisconsin, 1908-'13. Present position, 1913.

EDMUND HOWARD HOLLANDS, Professor of Philosophy.

Ph. B. Cornell, 1899; A. M. Cornell, 1901; Ph. D. Cornell, 1905. Instructor in Philosophy, Cornell, 1905-'06; Instructor in Philosophy, Princeton, 1906-'07; Instructor in Philosophy, Cornell, 1907-'09; Assistant Professor of Philosophy, Hamilton, 1909-'10; Professor of Philosophy, Butler, 1910-'13. Present position, 1913.

HENRY WILBUR HUMBLE, Professor of Law.

A. M. Cornell, 1908; LL. B. Cincinnati, 1904; J. D. Chicago, 1915. Assistant in Economics, Cornell, 1907-'08; Associate Professor of Law, Kansas, 1908-'13. Present position, 1913.

EDWARD JAMES CURRAN, Professor of Opthalmology.

M. D. Harvard, 1908; D. Ophth. Oxon, 1910. Present position, 1913.

GOLDWIN GOLDSMITH, Professor of Architecture.

Ph. B. Columbia, 1896; Atelier Duray, Paris, 1896-'97. Present position, 1913.

WILLIAM ARCH MCKEEVER, Head of Department of Child Welfare.

A. M. Kansas, 1898; Ph. M. Chicago, 1904; LL. D. Berea, 1917. Professor of Philosophy, Kansas State Agricultural College, 1900-'13. Present position, 1913.

FRANK BURNETT DAINS, Professor of Chemistry.

Ph. B. Connecticut Wesleyan, 1890; M. S. Wesleyan, 1891; Ph. D. Chicago, 1898. Assistant Professor of Chemistry, Northwestern, 1895-1901; Professor of Chemistry, Washburn, 1902-'11; Associate Professor of Chemistry, Kansas, 1911-'14. Present position, 1914.

CLEMENT CLARENCE WILLIAMS, Professor of Civil Engineering.

B. S. Southern Iowa Normal, 1900; B. S. in C. E. Illinois, 1907; C. E. Colorado, 1909. Instructor, Southern Iowa Normal, 1900-'02; Instructor in Civil Engineering, Colorado, 1907-'09; Assistant Professor of Civil Engineering, Colorado, 1909-'14. Present position, 1914.

ELMER FRANKLIN ENGEL, Professor of German.

A. B. Kansas, 1892; A. M. Harvard, 1898. Assistant in German, Kansas, 1892-'96; Assistant Professor of German, Kansas, 1896-1905; Associate Professor of German, Kansas, 1905. Present position, 1914.

ARTHUR MACMURRAY, Professor of Public Speaking.

A. B. Kansas, 1896; M. O. Ott School of Expression, 1904. Professor of Public Speaking, Iowa State College, 1908-'14. Present position, 1914.

ELIZABETH CADE SPRAGUE, Professor of Home Economics.

Graduate, Boston Normal School of Household Arts, 1898. Instructor in Home Economics, Lake Erie, 1900-'01; Research Assistant, Illinois, 1901-'05; Instructor in Home Economics, Chicago, 1905-'13. Present position, 1914.

WILLIAM BELL DOWNING, Professor of Voice and Public School Music.

Graduate, Drake, 1905; Professor of Voice, Highland Park, 1907-'09; Instructor in Voice, Drake, 1909-'13. Present position, 1914.

DON CARLOS GUFFEY, Professor of Obstetrics and Gynecology.

B. S. Missouri, 1899; M. S. Kansas, 1908; M. D. Pennsylvania, 1905. Present position, 1914.

PETER THOMAS BOHAN, Professor of Clinical Medicine.

M. D. Rush, 1800. Instructor in Internal Medicine, 1905. Present position, 1914.

GEORGE M. GRAY, Professor of Clinical Surgery.

M. D. Kansas City Medical, 1879; M. D. Bellvue, 1880. Present position, 1914.

RAPHAEL DORMAN O'LEARY, Professor of English.

A. B. Kansas, 1893; A. B. Harvard, 1895. Assistant Professor of English, Kansas, 1895-1901; Associate Professor of Rhetoric, 1901-'15. Present position, 1915.

RAYMOND ALFRED SCHWEGLER, Professor of Education.

A. B. Brown, 1899; A. M. Ottawa, 1907. Associate Professor of Education, Kansas, 1907-'15. Present position, 1915.

ARTHUR JEROME BOYNTON, Professor of Economics.

A. B. Harvard, 1901; A. M. Columbia, 1902. Assistant Professor of Economics, 1903-'10; Associate Professor of Economics, Kansas, 1910-'15. Present position, 1915.

CHARLES HAMILTON ASHTON, Professor of Mathematics.

A. B. Union, 1887; A. M. Harvard, 1893; Ph. D. Munich, 1909. Instructor in Mathematics, Harvard, 1894-1903; Assistant Professor of Mathematics, Kansas, 1903-'10; Associate Professor of Mathematics, 1910-'15. Present position, 1915.

HAROLD LANCASTER BUTLER, Dean of the School of Fine Arts, and Professor of Voice.

A. B. Valparaiso, 1894; Graduate, School of Music, Valparaiso, 1895; LL. B. Valparaiso, 1896; Graduate, Gottschalk Lyric School, Chicago, 1898. Instructor in Voice, Valparaiso, 1896-'98; Director, School of Music, Valparaiso, 1890-1904; Director Vocal Department, College of Fine Arts, Syracuse, 1904-'15. Present position, 1915.

HARRY CONRAD THURNAU, Professor of Germanic Languages and Literatures.

A. B. Michigan, 1899; A. M. Michigan, 1903; Ph. D. Michigan, 1909. Instructor in German, University of Michigan, 1905-'12; Associate Professor of German, Oberlin College, 1912-'15. Present position, 1915.

FREDERICK JAMES KELLY, Dean of University Administration, and Acting Dean of the School of Education.

A. B. Nebraska, 1902; Ph. D. Columbia, 1914. Director of the Training School, State Normal, Spearfish, S. Dak., 1908-'12; Director of the Training School, State Normal, Emporia, Kan., 1914-'15. Dean of the School of Education, Director of the Summer Session and Professor of Education, Kansas, 1915-'20. Present position, 1920.

DAVID LESLIE PATTERSON, Professor of European History.

B. S. Pennsylvania State, 1895. Instructor in History, Wisconsin, 1905-'08; Associate Professor of History, Kansas, 1908-'16; Acting Associate Professor of History, Wisconsin, 1914-'15. Acting Dean of the College of Liberal Arts and Sciences, 1916-'20. Present position, 1916.

LEON NELSON FLINT, Professor of Journalism.

A. B. Kansas, 1897. Lecturer in Journalism, Kansas, 1906-'09; Assistant Professor of Journalism, 1909-'13; Associate Professor of Journalism, 1913-'16. Present position, 1916.

RICHARD L. SUTTON, Professor of Dermatology.

M. D. University Medical College, 1901; M. D. George Washington, 1904. Associate Professor of Dermatology, 1911-'16. Present position, 1916.

GEORGE ELLETT COGHILL, Professor of Anatomy.

A. B. Brown, 1896; M. S. New Mexico, 1899; Ph. D. Brown, 1902. Assistant Professor of Biology, New Mexico; 1899-1901; Professor of Biology, Pacific, 1902-'06; Professor of Biology, Williamette, 1906-'07; Professor of Zoölogy, Denison, 1907-'13; Associate Professor of Anatomy, Kansas, 1913-'16. Present position, 1916.

OLE OLUFSON STOLAND, Professor of Physiology.

A. B. South Dakota, 1905; M. S. Chicago, 1911; Ph. D. Chicago, 1913. Instructor in Biology, South Dakota, 1906-'11; Assistant in Physiology, Chicago, 1911-'13; Professor of Physiology, South Dakota, 1913-'16. Present position, 1916.

WALTER SAMUEL HUNTER, Professor of Psychology.

A. B. Texas, 1910; Ph. D. Chicago, 1912. Instructor in Philosophy, Texas, 1912-'14; Adjunct Professor of Psychology, Texas, 1914-'16. Present position, 1916.

WILLIAM MATHEWS HEKKING,[3] Professor of Drawing and Painting.

B. P. Syracuse, 1908; Art Student's League, New York; Academie Julien; Academie Colorossi. Instructor in Drawing, Syracuse, 1911-'12; Director, School of Fine and Applied Arts, James Millikin, 1912-'15; Associate in Drawing, Department of Architecture, Illinois, 1915-'16. Present position, 1916.

FRANK ESTES KENDRIE, Professor of Violin and Orchestral Ensemble.

A. B. Bowdoin, 1910; A. M. Harvard, 1912. Professor of Violin, Valparaiso, 1914-'17. Present position, 1917.

GEORGE JUSSEN HOOD, Professor of Engineering Drawing.

B. S. Kansas, 1902. Assistant Professor of Mechanical Drawing, Kansas, 1902-'11; Associate Professor of Mechanical Drawing, 1914-'17. Present position, 1917.

CARL FERDINAND NELSON, Professor of Physiological Chemistry.

A. B. Wisconsin, 1908; A. M. Wisconsin, 1910; Ph. D. Wisconsin, 1912, M. D. Rush, 1917. Instructor in Chemistry, Iowa, 1908-'11; Instructor in Chemistry, Illinois, 1912; Associate Professor of Physiological Chemistry, Kansas, 1913-'17. Present position, 1917.

ARTHUR LESLIE OWEN, Professor of Hispanic Languages.

A. B. Vermont, 1906; A. M. Illinois, 1909. Assistant Professor of Romance Languages, Kansas, 1910; Instructor in Romance Languages, Chicago, 1913; Associate Professor of Romance Languages, Kansas, 1914-'18. Present position, 1918.

NOBLE PIERCE SHERWOOD, Professor of Bacteriology.

B. S. Kansas, 1905; A. M. Kansas, 1911. Instructor in Bacteriology, Kansas, 1910-'13; Assistant Professor of Bacteriology, Kansas, 1913-'16; Associate Professor of Bacteriology, Kansas, 1916-'18. Present position, 1918.

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3. Absent on leave.

GEORGE OTIS FOSTER, Registrar.

A. B. Kansas, 1901. Present position, 1899.

HAROLD DE FOREST BURDICK, Professor of Military Science and Tactics.

U. S. Naval Academy, 1908; Captain of Coast Artillery. Present position, 1919.

CLINTON MASON YOUNG, Professor of Mining Engineering.

B. S. in Mining, Case, 1904; E. M. Case, 1909. Associate Professor of Mining, Kansas, 1906-'14; Assistant Professor, Mining Research, Illinois, 1916-'19. Present position. 1919.

WALTER ROBINSON SMITH, Professor of Sociology.

Ph. B. Missouri Valley, 1899; Ph. M. Chicago, 1901; Ph. D. Chicago, 1907. Instructor, History and Political Science, Washington U., 1903-'07; Professor Social Sciences, Heidelberg College, 1907-'09; Professor of Sociology and Economics, Kansas State Normal, Emporia, 1909-'19. Present position, 1919.

HERMAN CAMP ALLEN, Professor of Chemistry.

A. B. McPherson, 1904; A. M. Kansas, 1905; Ph. D. Cornell, 1912. Assistant Professor of Chemistry, 1910-'14; Associate Professor of Chemistry, 1914-'19. Present position, 1919.

SELDEN LINCOLN WHITCOMB, Professor of Comparative Literature.

A. M. Columbia, 1893; Litt. D. Grinnell, 1918. Professor of English Literature, Grinnell, 1895-1905; Associate Professor of English Literature, Kansas, 1905-'18; Associate Professor of Comparative Literature, Kansas, 1918-19. Present position, 1919.

LOUIS EUGENE SISSON, Professor of English.

A. B. Leland Stanford, 1904; A. M. Harvard, 1909. Instructor in Rhetoric, 1904-'05; Assistant Professor of Rhetoric, 1905-'10; Associate Professor of Rhetoric, 1910-'19. Present position, 1919.

RAYMOND CECIL MOORE, Professor of Geology and Invertebrate Paleontology, and State Geologist.

A. B. Denison, 1913; Ph. D. Chicago, 1916. Assistant in Geology, Chicago, 1914-'16; Instructor in Geology, Chicago, 1916; Assistant Professor of Geology and Paleontology, Kansas, 1916-'18; Associate Professor of Geology and Paleontology, Kansas, 1918-'19. Present position, 1919.

ALBERT JAMES HARNO, Professor of Law.

B. S. Dakota Wesleyan, 1911; LL. B. Yale, 1914. Dean, Washburn Law School, 1917-'19. Present position, 1919.

ARTHUR E. HERTZLER, Professor of Surgery.

M. D. Northwestern, 1894; Ph. D. Illinois Wesleyan, 1902. Associate Professor of Surgery, Kansas, 1905-'19. Present position, 1919.

HAROLD GREENE INGHAM, Acting Director of University Extension.

A. B. Milton, 1909. Instructor in Business Administration, Wisconsin, 1913-'15. Secretary Correspondence Study Department, Kansas, 1915-'18. Present position, 1918.

FORREST CLAIRE ALLEN, Professor of Physical Education and Director of Athletics.

D. O. Central College of Osteopathy, 1912. Professor of Physical Education, Central Missouri State Teachers' College, Warrensburg, 1912-'19. Present position, 1919.

HARRY ROSWELL WAHL, Professor of Pathology and Bacteriology.

M. A. Wisconsin, 1910; M. D. Johns Hopkins, 1912. Assistant in Anatomy, Wisconsin, 1908-'10; Instructor, Western Reserve, 1913-'15; Associate, Western Reserve, 1915-'19. Present position, 1919.

HENRY CARROL TRACY, Professor of Anatomy.

A. B. Dartmouth, 1902; A. M. Browne, 1905; Ph. D. Brown, 1910. Assistant in Physiology, Brown, 1904-'07; Instructor in Anatomy, Northwestern, 1910-'13; Professor of Anatomy, Marquette, 1913-'19. Present position, 1920.

FRANK STRONG, Professor of Constitutional Law.

A. B. Yale, 1884; A. M. Yale, 1893; Ph. D. Yale, 1897; LL. D. Oregon, Baker, Kansas Agricultural College, 1909. Lecturer in History, Yale, 1897-'99; President, University of Oregon, 1899-1902; Chancellor, University of Kansas, 1902-'20. Present position, 1920.

ALBERTA LINTON CORBIN, Adviser of Women, and Professor of German.

A. B. Kansas, 1893; Ph. D. Yale, 1902. Assistant Professor of German, Kansas, 1902-'11; Associate Professor of German, 1911-'18. Present position, 1918.

FREDERICK NEWTON RAYMOND, Professor of Rhetoric.

A. B. Kansas, 1896; A. M. Columbia, 1897. Assistant Professor of Rhetoric, Kansas, 1901-'14. Associate Professor of Rhetoric, Kansas, 1914-'20. Present position, 1920.

ELISE NEUEN SCHWANDER, Professor of Romance Languages.

A. B. Kansas, 1898; Ph. D. Yale, 1913. Assistant Professor of Romance Languages, 1905-'14. Associate Professor of Romance Languages, Kansas, 1914-'20. Present position, 1920.

WILLIAM WATSON DAVIS, Professor of American History.

B. S. Alabama Polytechnic Institute, 1903; M. S. Alabama Polytechnic Institute, 1904; A. M. Columbia, 1906; Ph. D. Columbia, 1913. Lecturer in History, Columbia, 1908-'09; Assistant Professor of American History, Kansas, 1910-'14. Associate Professor of American History, Kansas, 1914-'20. Present position, 1920.

CLARENCE CORY CRAWFORD, Professor of European History.

A. B. Kansas, 1903; A. M. Kansas, 1904; Ph. D. Wisconsin, 1906. Assistant in History, Wisconsin, 1904-'06; Instructor in History, Missouri, 1906-'07; Assistant Professor of European History, Kansas, 1907-'13. Associate Professor of European History, Kansas, 1913-'20. Present position, 1920.

WILLIAM SAVAGE JOHNSON, Professor of English Literature.

A. B. Yale, 1900; Ph. D. Yale, 1905. Instructor, Yale, 1905-'08; Assistant Professor of English Literature, Kansas, 1908-'13. Associate Professor of English Literature, Kansas, 1913-'20. Present position, 1920.

ULYSSES GRANT MITCHELL, Professor of Mathematics.

A. B. Kansas, 1906; A. M. Kansas, 1907; Ph. D. Princeton, 1910. Instructor in Mathematics, Kansas, 1906-'08; Assistant Professor of Mathematics, Kansas, 1910-'15. Associate Professor of Mathematics, Kansas, 1915-'19. Present position, 1920.

HERBERT BARKER HUNGERFORD, Professor of Entomology.

A. B. Kansas, 1911; A. M. Kansas, 1913; Ph. D. Cornell, 1918. Instructor in Entomology, Kansas, 1911-'13; Assistant Professor of Entomology, Kansas, 1913-'17. Associate Professor of Entomology, Kansas, 1917-'20. Present position, 1920.

BLAINE FREE MOORE, Professor of Political Science.

A. B. Kansas, 1901; A. M. Illinois, 1908; Ph. D. Columbia, 1913. Division Superintendent and Member of the Provincial Council in the Philippine Islands, 1901-'06; Instructor in Government, University of Michigan, 1909-'10; Assistant Professor of Political Science, George Washington University, 1910-'15; Lecturer in Political Science, University of Wisconsin, 1913-'14; Assistant Professor of Political Science, Kansas, 1915-'17. Associate Professor of Political Science, Kansas, 1917-'20. Present position, 1920.

EUGENE SMITH, Head of University Health Department.

M. D. Rush, 1876. Instructor and Demonstrator in Anatomy, Kansas, 1903-'18. Present position, 1918.

JOHN ISE, Professor of Economics.

Mus. B. Kansas, 1908; A. B. Kansas, 1910; LL. B. Kansas, 1911; A. M. Harvard, 1912; Ph. D. Harvard, 1914. Assistant in Economics, Harvard, 1912-'13; Assistant Professor of Economics, Iowa State College, 1914-'15; Associate Professor of Economics, Iowa State College, 1915-'16; Assistant Professor of Economics, Kansas, 1916-'19. Associate Professor of Economics, Kansas, 1919-'20. Present position, 1920.

ELWIN SMITH, Professor of Voice.

B. S. Oklahoma A. and M., 1914; Graduate Cincinnati Conservatory of Music; Pupil of David Bispham, Theodore Harrison, Dr. Fery Lulek, Herman Devries. Instructor, Cincinnati Conservatory of Music, 1916-'19. Present position, 1920.

HARRY PEARSE SMITH, Professor of Education.

A. B. Iowa, 1909; A. M. Iowa, 1915. Present position, 1920.

ROSEMARY KETCHAM, Professor of Design.

Litt. B. Ohio Wesleyan. Associate Professor, Syracuse, 1908-'12; Professor, Syracuse, 1912-'20. Present position, 1920.

HAROLD PUTNAM BROWNE, Professor of Drawing and Painting.

Pupil of Caro-Delvaille and Jean Paul Laurens, Paris; Heymann, Munich; F. Luis Mora, New York; George Elmer Browne, New York. Present position, 1920.

FRANCIS PAUL O'BRIEN, Professor of Education, and Director Bureau of Educational Research and Service.

A. B. Lafayette, 1908; M. A. Columbia, 1916; Ph. D. Columbia, 1918. Superintendent of Schools, South River, N. J., 1910-'15. Present position, 1920.

ASSOCIATE PROFESSORS.

MILES WILSON STERLING, Associate Professor of Greek.

A. B. Kansas, 1883; A. M. Kansas, 1893. Assistant in Latin and Greek, Kansas, 1883-'85; Assistant in Greek, 1885; Assistant Professor of Greek, Kansas, 1896-1901. Present position, 1901.

HANNAH OLIVER, Associate Professor of Latin.

A. B. Kansas, 1874; A. M. Kansas, 1888. Assistant Professor of Latin, 1890-1905. Present position, 1905.

WILLIAM FREDERICK KUHN, Associate Professor of Psychiatry.

A. M. Wittenberg, 1878; M. D. Jefferson Medical, 1885. Present position, 1905.

WILLIAM KIRK TRIMBLE, Associate Professor of Clinical Pathology.

M. D. Kansas City Medical, 1900. Present position, 1905.

MARTIN EVERETT RICE, Associate Professor of Physics and Electrical Engineering.

B. S. Kansas, 1891; M. S. Kansas, 1893. Instructor in Physics, Kansas, 1892-'95; Assistant Professor of Physics, Kansas, 1895-1901. Present position, 1906.

WILLIAM JACOB BAUMGARTNER, Associate Professor of Zoölogy.

A. B. Kansas, 1900; A. M. Kansas, 1901. Instructor of Zoölogy, Kansas, 1904-'05; Assistant Professor of Zoölogy, Kansas, 1905-'13. Present position, 1913.

HENRY OTTO KRUSE, Associate Professor of German.

A. B. Kansas, 1894; A. M. Kansas, 1903. Instructor in German, Kansas, 1904-'05; Assistant Professor of German, 1905-'13. Present position, 1913.

VICTOR EMANUEL HELLEBERG, Associate Professor of Sociology.

A. B. Yale, 1883; LL. B. Cincinnati, 1885. Instructor in Sociology, Chicago, 1908-'10; Assistant Professor of Sociology, Kansas, 1910-'13. Present position, 1913.

MARGARET LYNN, Associate Professor of English Literature.

B. S. Tarkio, 1899; A. M. Nebraska, 1900. Assistant Professor of English Literature, Kansas, 1901-'14. Present position, 1914.

WILLIAM COLEMAN MCNOWN, Associate Professor of Civil Engineering.

B. S. Wisconsin, 1903. Instructor in Civil Engineering, Cornell, 1905-'07; Professor of Civil Engineering, Earlham, 1907-'09; Assistant Professor of Civil Engineering, Kansas, 1913-'14. Present position, 1914.

ALFRED HIGGINS SLUSS, Associate Professor of Mechanical Engineering.

B. S. in Mech. Eng., Illinois, 1901. Assistant Professor of Mechanical Engineering, 1908-'15. Present position, 1915.

ORVAL JAMES CUNNINGHAM, Associate Professor of Surgery.

M. D. Rush, 1904. Present position, 1915.

HUBERT WILBUR NUTT, Associate Professor of Education, and Director of Oread Training School.

Ph. B. Chicago, 1914; Dean of Education, Marion Normal, 1909-'12; Dean of Education, Muncie Normal, 1913-'14; Assistant Professor of Education, Kansas, 1914-'16. Present position, 1916.

JOSEPH GRANGER BRANDT, Acting Dean of the College of Liberal Arts and Sciences, and Associate Professor of Greek.

Ph. B. Lawrence College, 1903; Ph. D. Wisconsin, 1911. Instructor in Latin, Wisconsin, 1908-'11; Carnegie Research Associate, American School of Classical Studies in Rome, 1911-'12; Instructor in Latin, Wisconsn, 1912-'13; Assistant Professor of Latin, Wisconsin, 1913-'14; Assistant Professor of Latin and Greek, Wisconsin, 1914-'15; Assistant Professor of Greek, Kansas, 1915-'16; Associate Professor of Greek, Kansas, 1916-'20. Present position, 1920.

RAYMOND FRIDMAN RICE, Associate Professor of Law.

A. B. Oberlin, 1905; LL. B. Kansas, 1908. Associate Professor of Law, Kansas, 1913-'15. Present position, 1916.

RALPH EMERSON CARTER, Associate Professor of Education.

Ph. B. Franklin, 1906; A. M. Chicago, 1911. Instructor in Education, Texas, 1912-'13; Assistant Professor of Education, Kansas, 1913-'17. Present position, 1917.

ELLIS BAGLEY STOUFFER, Associate Professor of Mathematics.

A. B., A. M. Drake, 1907; Ph. D. Illinois, 1911. Assistant Professor of Mathematics, Kansas, 1914-'17. Present position, 1917.

ROBERT DOUGLAS IRLAND, Associate Professor of Obstetrics and Gynecology.

M. D. Kansas, 1909. Instructor in Obstetrics, Kansas, 1911-'15; Assistant Professor of Obstetrics, 1915-'17. Present position, 1917.

GEORGE WEATHERWORTH STRATTON, Associate Professor of Chemistry.

A. B. Colorado, 1907; A. M. Ohio State, 1909; Ph. D. Ohio State, 1912. Instructor in Chemistry, Ohio State, 1909-'12; Assistant Professor of Chemistry, Kansas, 1912-'13; Assistant Professor of Chemistry, Kansas, 1914-'18. Present position, 1918.

FRANCIS ELLIS JOHNSON, Associate Professor of Electrical Engineering.

A. B. Wisconsin, 1906; E. E. Wisconsin, 1909. Instructor in Electrical Engineering, Rice Institute, 1912-'15; Instructor in Electrical Engineering, Kansas, 1915-'16; Assistant Professor of Electrical Engineering, Kansas, 1915-'18. Present position, 1918.

JOHN ROBINSON FRAZIER, Associate Professor of Drawing and Painting.

Graduate Rhode Island School of Design, 1909. Instructor in Drawing, Rhode Island School of Design, 1909-'12; Instructor in Drawing, Bradley Institute, 1912-'17; Assistant Professor of Drawing and Painting, Kansas, 1917-'19. Present position, 1919.

DINSMORE ALTER, Associate Professor of Astronomy.

B. S. Westminster College, 1909; M. S. University of Pittsburg, 1910; Ph. D. California, 1916. Instructor in Physics and Astronomy, 1911-'12; Assistant Professor of Physics and Astronomy, 1912-'13, and Adjunct Professor of Physics and Astronomy, Alabama, 1913-'14; Instructor in Astronomy, California, 1914-'17; Assistant Professor of Astronomy, Kansas, 1917-'19. Present position, 1919.

WILLIAM LEWIS EIKENBERRY, Associate Professor of the Teaching of Biological Sciences.

B. S. Michigan, 1894. Instructor in Science, Mt. Morris College, 1894-1901; Instructor in Botany, University High School, Chicago, 1909-'16; Assistant in Natural Science, Chicago, 1909-'16; Assistant Professor of the Teaching of Biological Sciences, 1916-'19. Present position, 1919.

FRANK LOGAN BROWN, Associate Professor of Mechanics.

B. S in C. E., Colorado, 1911. Instructor in Civil Engineering, Colorado, 1911-'13; Assistant Professor of Mechanics, Kansas, 1913-'19. Present position, 1919.

RICHARD LEONIDAS GRIDER, Associate Professor of Mining.

E. M. Colorado School of Mines, 1905. Instructor in Mining, University of Oregon, 1909-'10; Instructor in Mining, Kansas, 1915-'16; Assistant Professor of Mining, Kansas, 1916-'19. Present position, 1919.

MARTHA MITCHELL BACON, Associate Professor of Physical Education.

M. D. College of Physicians and Surgeons, 1897. Present position, 1919.

WARD WILLIAM SULLIVAN, Associate Professor of History in University Extension Division.

A. B. Illinois, 1911; A. M. Illinois, 1914. Professor of History, Kansas State Normal, 1914-'17; Assistant Professor of History in University Extension Division, Kansas, 1918-'19. Present position, 1919.

ARTHUR JACKSON MIX, Associate Professor of Botany.

A. B. Hamilton, 1910; Ph. D. Cornell, 1916. Assistant Botanist, New York Agricultural Experiment Station, 1915-'16; Instructor in Plant Pathology, Kansas, 1916-'18; Assistant Professor of Botany, Kansas, third quarter, 1918-'19. Present position. 1919.

WINTHROP PERRIN HAYNES,[4] Associate Professor of Geology, Mineralogy and Petrology.

A. B. Harvard, 1910; A. M. Harvard, 1912; Ph. D. Harvard, 1914. Assitant in Geology, Harvard, 1908-'16; Instructor in Geology, Radcliffe, 1911-'14; Instructor in Geology, Wellesley, 1914-'16; Assistant Professor of Geology, Mineralogy and Petrology, Kansas, 1916-19. Present position, 1919.

THOMAS GROVER ORR, Associate Professor of Surgery, and Chief of the Dispensary.

A. B. University of Missouri, 1907; M. D. Johns Hopkins University, 1910. Instructor in Bacteriology, Kansas, 1915; Assistant Professor of Surgery, Chief of Dispensary and Pathologist to Bell Memorial Hospital, 1915-'19. Present position, 1919.

CLARENCE BENJAMIN FRANCISCO, Associate Professor in Orthopedic Surgery.

M. D. Kansas, 1907. Instructor in Orthopedic Surgery, Kansas, 1905-'17; Assistant Professor in Orthopedic Surgery, Kansas, 1917-'19. Present position, 1919.

SOLOMON LFFSCHETZ,[5] Associate Professor of Mathematics.

M. E. Ecole Centrale, 1905; Ph. D. Clark, 1911. Instructor in Mathematics, Nebraska, 1911-'13; Instructor in Mathematics, Kansas, 1913-'16; Assistant Professor of Mathematics, Kansas, 1916-'19. Present position, 1919.

LULU GARDNER, Associate Professor of Rhetoric.

A. B. Kansas, 1905. Instructor in Rhetoric, Kansas, 1905-'09. Assistant Professor of Rhetoric, Kansas, 1910-'20. Present position, 1920.

ALBERT MOREY STURTEVANT, Associate Professor of German.

A. B. Harvard, 1899; A. M. Harvard, 1901; Ph. D. Harvard, 1905. Instructor in German, 1908-'10; Assistant Professor of German, Kansas, 1910-'20. Present position, 1920.

WILLIAM REES B. ROBERTSON, Associate Professor of Zoölogy.

A. B. Kansas, 1906; A. M. Kansas, 1907; Ph. D. Harvard, 1915. Instructor in Zoölogy, Kansas, 1907-'09; Assistant Professor of Zoölogy, Kansas, 1912-'20. Present position, 1920.

AMIDA STANTON, Associate Professor of Romance Languages.

A. B. Kansas, 1904; A. M. Kansas, 1910. Instructor in Romance Languages, 1910-'16; Assistant Professor of Romance Languages, Kansas, 1910-'20. Present position, 1920.

CHARLES EUGENE JOHNSON, Associate Professor of Zoölogy.

A. B. Minnesota, 1906; A. M. Minnesota, 1907; Ph. D. Minnesota, 1912. Assistant in Zöology and Comparative Anatomy, Minnesota, 1907-'12; Instructor, Minnesota, 1912-'18. Assistant Professor of Zoölogy, Kansas, 1918-'20. Present position, 1920.

JOHN ADLUM DENT, Associate Professor of Mechanical Engineering.

M. E. Lehigh, 1905. Instructor, Illinois, 1910-'13; Associate, Illinois, 1913-'17: Assistant Professor of Mechanical Engineering, Kansas, 1919-'20. Present position, 1920.

LAFORCE BAILEY, Associate Professor of Design.

B. S. in Architecture, Illinois, 1915; M. S. in Architecture, Illinois, 1916. Assistant Instructor in Architecture, Kansas, 1916-'17; Instructor in Architecture, Kansas, 1917-'19; Assistant Professor of Design, Kansas, 1919-'20. Present position, 1920.

RENA MARY LAZELLE, Associate Professor of Voice.

Pupil of Mme. Elena Varesi, Ross David, Victor Maurel. Professor of Voice, Illinois Woman's College, 1915-'20. Present position, 1920.

ALBERT HARTWELL JEWELL, Associate Professor of Sanitary Engineering, and Director Water and Sewage Laboratory.

B. S. in E. Mich. Agricultural College, 1915; M. S. in Eng. Michigan, 1916. Assistant Engineer, State Board of Health, and Instructor in Sanitary Engineering, Kansas, 1916-'17. Present position, 1920.

CHESLEY JUSTIN POSEY, Associate Professor of Geography.

S. B. Illinois, 1900; S. M. Chicago, 1905. Instructor in Geology, Wisconsin, 1912-'13; Assistant Professor of Geography, Minnesota, 1913-'20. Present position, 1920.

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4. Absent on leave.
5. Absent on leave.

ASSISTANT PROFESSORS.

CHARLES MORGAN STERLING, Assistant Professor of Pharmacognosy.

A. B. Kansas, 1897. Present position, 1901.

EDWIN FISKE STIMPSON, Assistant Professor of Physics.

B. S. Kansas, 1890. Instructor in Physics, 1901-'05. Present position, 1905.

FRANK EVERETT JONES, Assistant Professor of Engineering Drawing.

Instructor in Carpentry and Pattern Making, 1903-'06; Assistant Professor of Pattern Making and Foundry, 1906-'15; Superintendent of Fowler Shops, 1915-'19. Present position, 1919.

JAMES EDWARD TODD,[6] Assistant Professor of Geology and Mineralogy.

A. B. Oberlin, 1867; M. A. Oberlin, 1870. Professor of Natural Sciences, Tabor, 1871-'92; Adjunct Professor of Natural Sciences, Beloit, 1881-'83; Professor of Geology and Mineralogy, South Dakota, 1892-1903. Present position, 1907.

HARRIET GREISINGER, Assistant Professor of Piano.

Mus. B. Kansas, 1895. Instructor in Piano, 1902-'07. Present position, 1907.

GEORGE NATHANIEL WATSON, Assistant Professor of Pharmacy, in charge of Drug Laboratory.

A. B. Michigan, 1904; B. S. Michigan, 1908; Ph. C. Michigan, 1908. Instructor in Pharmacy, 1909-'10. Present position, 1910.

EDWARD PARK HALL, Assistant Professor of Otorhinolaryngology.

M. D. Ensworth Medical, 1897. Present position, 1911.

HERBERT E. JORDAN, Assistant Professor of Mathematics.

A. B. McMaster, 1900; A. M. McMaster, 1901; Ph. D. Chicago, 1904. Instructor in Mathematics, Brandon College, 1904-'06; Instructor in Mathematics and Physics, Michigan College of Mines, 1906-'11. Present position, 1911.

WALTER STERRITT LONG, Assistant Professor of Chemistry, in charge of Food Laboratory.

A. B. Ohio Wesleyan, 1905; A. M. Ohio Wesleyan, 1908. Assistant in Chemistry, 1911-'12. Present position, 1913.

NADINE NOWLIN, Assistant Professor of Zoölogy.

A. B. Kansas, 1903; A. M. Kansas, 1903. Instructor in Zoölogy, 1906-'13. Present position, 1913.

ANNA LOUISE SWEENEY, Assistant Professor of Piano.

Mus. B. Kansas, 1906. Instructor, Kansas, 1909. Present position, 1914.

GRACE MIRIAM CHARLES,[7] Assistant Professor of Botany.

A. B. Oberlin, 1900; A. M. Chicago, 1905; Ph. D. Chicago, 1910. Instructor in Botany, Kansas, 1911-'15. Present position, 1915.

JACOB OSCAR JONES, Assistant Professor of Hydraulics.

B. S. Kansas, 1912; M. C. E. Cornell, 1915. Instructor in Civil Engineering, Kansas, 1912-'14. Present position, 1915.

JOSEPHINE MAY BURNHAM, Assistant Professor of English.

Ph. B. University of Chicago, 1901; Ph. D. Yale, 1910. Instructor in English, Wellesley College, 1902-'12; Associate Professor of English, Wellesley College, 1912. Present position, 1915.

FRANK EDGAR MELVIN, Assistant Professor of Modern European History.

A. B. Kansas, 1906; A. M. Kansas, 1909; Ph. D. Pennsylvania, 1913. Assistant in History, Illinois, 1909-'12; Lecturer in History, Pennsylvania, 1913-'15; Assistant Professor of Modern European History, Cornell, 1915-'16. Present position, 1916.

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6. Absent on leave.
7. Absent on leave.

ROSE RUTH MORGAN,[8] Assistant Professor of Rhetoric.

A. B. Kansas, 1894; A. M. Kansas, 1905. Instructor in Rhetoric, 1910-'16. Present position, 1916.

JOHN JEFFERSON WHEELER, Assistant Professor of Mathematics, and University Marshal.

A. B. Indiana, 1905; A. M. Kansas, 1913. Professor of Mathematics, Friends, 1905-'11; Instructor in Mathematics, Kansas, 1911-'16. Present position, 1916.

MAY GARDNER, Assistant Professor of Hispanic Languages.

A. B. Kansas, 1897. Instructor in Romance Languages, Kansas, 1909-'17. Present position, 1917.

HELEN MAUDE CLARKE, Assistant Professor in Correspondence Study.

A. B. Kansas, 1903; A. M. Kansas, 1907; Ph. D. Cornell, 1910. Instructor in Correspondence Study, Kansas, 1910-'17. Present position, 1917.

DONALD RAY BLACK, Assistant Professor of Pathology.

A. B. Kansas, 1914; M. D. Kansas, 1916. Interne, Bell Memorial Hospital. Present positon, 1917.

HERBERT F. VANORDEN, Assistant Professor of Gynecology and Obstetrics.

Ph. B. Yale, 1907; M. D. Johns Hopkins, 1910. Instructor in Gynecology and Obstetrics, Kansas, 1915-'17. Present position, 1917.

CHARLES CLAYTON DENNIE, Assistant Professor of Dermatology.

B. S. Baker, 1908; M. D. Kansas, 1912. Present position, 1917.

RAY QUINCEY BREWSTER, Assistant Professor of Chemistry.

A. B. Ottawa, 1914; A. M. Kansas, 1915; Ph. D. Chicago, 1919. Assistant Instructor in Chemistry, 1915-'17; Instructor in Chemistry, Kansas, 1917-'18. Present position, 1918.

CHARLES HOYT WATSON, Assistant Professor of the Teaching of Physical Sciences.

A. B. Kansas, 1918. Present position, 1918.

ROBERT GEORGES MAHIEU, Assistant Professor of Romance Languages.

Ecole Secondaire Notre Dame, LaFlèche (Sarthe); A. B. University of Paris, 1915. Instructor Ecole Secondaire, Notre Dame (St. Calais), 1913-'15; Ecole Ste. Croix, Le Mans, 1915-'16; Ecole St. Charles (Jurisy), 1916-'18. Present position, 1918.

HERMAN BLANEY CHUBB, Assistant Professor of Political Science.

A. B. George Washington, 1912; A. M. Columbia, 1913. Lecturer, George Washington, 1916-'17; Research Assistant, Library of Congress, 1913-'17. Present position, 1918.

HOWARD MCKEE ELSEY, Assistant Professor of Chemistry.

A. B. Stanford, 1914; A. M. Stanford, 1915; Ph. D. Stanford, 1919. Assistant in Chemistry, Stanford, 1913-'16; Teaching Fellow, Stanford, 1917. Present position, 1918.

ELIZABETH CAMPBELL MEGUIAR, Assistant Professor of Home Economics.

Certificate, University of Chicago, 1910. Instructor, State College of Pennsylvania, 1910-'13. University of Chicago, 1913 (Summer), University of Texas, 1914-'17; Instructor in Home Economics, Kansas, 1917-18. Present position, 1918.

SAM EARL ROBERTS, Assistant Professor of Otorhinolaryngology.

M. D. Kansas, 1911. Present position, 1918.

JENS PETER JENSEN, Assistant Professor of Economics and Commerce.

A. B. Dakota Weslyan, 1913; A. M. Minnesota, 1917. Instructor, Chicago, 1919. Present position, 1919.

ALICE WINSTON, Assistant Professor of Rhetoric.

A. B. Chicago, 1898; A. M. Chicago, 1903. Instructor in Rhetoric, Kansas, 1909-'19. Present position, 1919.

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8. Absent on leave.

JOSE MARIA OSMA, Assistant Professor of Hispanic Languages.

College des Freres des Ecoles Chretiennes, Escuela de Bellas Artes, Barcelona, Spain; Ecole des Beaux Arts and Academie Vitty, Paris. Instructor, Colegio Superior de Sonoritas, 1910-'13; Colegio Superior de Senoritas y Seccion Normal, 1913-'17; Liceo de Costa Rica, 1913-'17. Instructor in Romance Languages, Kansas, 1917-'18. Instructor in Hispanic Languages, Kansas, 1918-'19. Present position, 1919.

ADRIAN HOBART LINDSEY, Assistant Professor of Physical Education.

Present position, 1919.

ANDREW J. NEWMAN, Assistant Professor of Economics and Commerce.

A. B. Washington University, St. Louis, 1910; A. M. Missouri, 1911. Assistant in Economics, Leland Stanford, Jr., University, 1916. Present position, 1919.

JOSEPH EDWARD WELKER, Assistant Professor of Pharmacology.

B. S. Clarkson School of Technology, 1913; M. of C. E. Harvard Graduate School of Applied Sciences, 1914. Assistant Professor of Sanitary Engineering, Kansas, 1914-'17; Chemist of Water and Sewage Laboratory, Kansas, 1917-'18; Assistant Professor of Physiology, Kansas, 1918-'19. Present position, 1919.

KARL A. SCHLADEMAN, Assistant Professor of Physical Education.

A. B. De Pauw, 1911. Athletic Director, Missouri Wesleyan, 1911-'12; Track Coach, De Pauw, 1914; Track Coach, Arizona, 1916; Athletic Director, Baker University, 1916-'19. Present position, 1919.

VIOLA JENNIE ANDERSON, Assistant Professor of Home Economics.

B. S. Simmons, 1912; M. S. Simmons, 1916. Instructor Margaret Morrison Institute, 1912-'15; Instructor, Illinois, 1916-'19. Present position, 1919.

DANIEL HOOKER SPENCER, Assistant Professor of Pharmacy.

A. B. Kansas, 1893; B. S. in Medicine, Kansas, 1900; Ph. C. Kansas, 1897. Assistant in Pharmacy, Kansas, 1897-1903. Present position, 1919.

FRANK LESLIE FLEENER, Assistant Professor of Geology.

A. B. Denison, 1912; A. M. Illinois, 1914. Assistant in Geology, Denison, 1910-'12; Instructor, Illinois, 1912-'14. Present position, 1919.

NATHAN FRASER STRACHAN, Assistant Professor of Sanitary Engineering.

B. S. Kansas, 1915. Instructor in Sanitary Engineering, and Assistant Engineer of State Board of Health, Kansas, 1916-'19. Present position, 1919.

THOMAS JENKINS SMART, Assistant Professor of Education, Extension Division, and Community Adviser.

A. B. Minnesota, 1914; A. M. Minnesota, 1918. Instructor, Minnesota, 1914-16; Instructor, Minnesota State Normal, 1917; Assistant Professor, State College of Agriculture, N. Dakota, 1917-'19. Present position, 1919.

JOSEPH L. MCDERMOTT, Assistant Professor of Internal Medicine.

M. D. Kansas, 1907. Instructor in Roentgen Therapy, Kansas, 1914-'20. Present position, 1920.

CARLOS ISAAC REED, Assistant Professor of Physiology.

A. B. Ohio, 1915. Laboratory Assistant, Ohio, 1911-'13; Assistant, Ohio, 1913-'16; Instructor, Ohio, 1916-'9. Present position, 1919.

NELSE FREDERICK OCKERBLAD, Assistant Professor of Surgery, Genito-urinary Diseases.

B. S. Hanover, 1914; M. D. Kansas, 1916. Assistant in Surgery, Kansas, 1918-'19. Present position, 1919.

HUBERT SHEPPARD, Assistant Professor of Anatomy.

A. B. Oklahoma, 1917; A. M. Oklahoma, 1917; Ph. D. Cornell, 1919. Instructor in Psychology, Kansas, 1918; Instructor in Psychology, Cornell, 1918-'19; Instructor in Psychology, Cornell, Summer Term, 1919; Instructor in Anatomy, Kansas, first semester, 1919. Present position, 1920 (second semester).

ALFRED HENRY WIETERS, Assistant Professor of Civil Engineering, and Assistant Engineer, State Board of Health.

B. S. in C. E. Kansas, 1917. Present position, 1920 (second semester).

SARA GRANT LAIRD,[9] Assistant Professor of Rhetoric.

A. B. Oberlin, 1904; A. M. Columbia, 1912. Instructor in Rhetoric, Kansas, 1912-'20. Present position, 1920.

WILLARD AUSTIN WATTLES,[10] Assistant Professor of Rhetoric.

A. B. Kansas, 1909; A. M. Kansas, 1911. Instructor in English, Massachusetts Agricultural College, 1911-'14. Instructor in Rhetoric, Kansas, 1914-'20. Present position, 1920.

PAUL BOWEN LAWSON, Assistant Professor of Entomology.

B. S. Oskaloosa, 1909; M. S. Kansas, 1917; Ph. D. Kansas, 1919. Instructor in Entomology, Kansas, 1916-'20. Present position, 1920.

JOHN AMBROSE HESS, Assistant Professor of Romance Languages.

A. B. Kansas, 1908; A. M. Kansas, 1910. Instructor in German, Kansas, 1909-'10; Instructor in German, Indiana, 1910-'15; Assistant Professor of German, Indiana, 1915-'18. Instructor in Romance Languages, Kansas, 1918-'20. Present position 1920.

RUSSELL STAFFORD KNAPPEN, Assistant Professor of Geology.

B. S. Ohio Wesleyan, 1913; M. A. Wisconsin, 1915. Assistant in Geology, Wisconsin, 1914-'15; Assistant in Geology, Columbia, 1915-'17; Instructor in Geology, Chicago University, 1919-'20. Present position, 1920.

CURT ROSENOW, Assistant Professor of Psychology.

B. S. Michigan, 1897; Ph. D. Chicago, 1917. Instructor in Psychology, Chicago, 1917-'18; Lecturer in Psychology, Chicago, 1918-'20. Present position, 1920.

FRANKIE HASKELL,[11] Assistant Professor of the Teaching of English.

A. B. Washburn, 1915; A. M. Columbia, 1917. Present position, 1920.

GUY WATSON SMITH, Assistant Professor of Mathematics.

B. S. (E. E.) Colorado, 1908; M. S. Colorado, 1909; Ph. D. Illinois, 1917. Instructor in Mathematics, Colorado, 1909-'13; Instructor in Mathematics and Physics, Beloit College, 1917-'18; Instructor in Mathematics, Kentucky, 1918-'20. Present position, 1920.

HOWARD PENROSE LASLETT, Assistant Professor of Physical Education.

A. B. Kansas, 1920. Present position, 1920.

EDWARD THOMAS GIBSON, Assistant Professor of Nervous and Mental Diseases.

A. B. Kansas, 1908; A. M. Kansas, 1910; M. D. Kansas, 1912. Present position, 1920.

HUGH MACKAY FLETCHER, Assistant Professor of Economics and Commerce.

B. A. University of British Columbia, 1919; M. A. Stanford University, 1920. Present position, 1920.

WALTER HENRY SCHOEWE, Assistant Professor of Geology.

A. B. Wisconsin, 1914; M. S. Wisconsin, 1915; Ph. D. Iowa, 1920. Assistant in Geology, Iowa, 1916-'18; Instructor in Geology, Iowa, 1918-'19; Instructor in Geology, Colorado School of Mines, 1919-'20. Present position, 1920.

HEARTY BROWN NELSON, Assistant Professor of Rhetoric.

A. B. Michigan, 1909; A. M. Michigan, 1910. Instructor, Kansas, 1912-'19. Present position, 1920.

JAMISON VAWTER, Assistant Professor of Mechanics.

B. S. in C. E. Kansas, 1916. Present position, 1920.

GLENN BERTRAM PATRICK, Assistant Professor of Physical Education.

A. B. Morningside, 1916; B. P. E. Chicago Y. M. C. A. College, 1920. Present position, 1920.

HOWARD DEFOREST, Assistant Professor of Botany.

B. S. Princeton, 1895; M. F. Yale, 1911; Ph. D. Chicago, 1920. Present position, 1920.

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9. Absent on leave, second semester.
10. Absent on leave.
11. Resigned February 1, 1921.

FRANK WEBER DILLON, Assistant Professor of Journalism.
A. B. Bucknell, 1898. Present position, 1920.

RALPH SHANNON TAIT, Assistant Professor of Mechanical Engineering.
B. S. Kansas, 1916. Present position, 1920.

GONZALO MANIBOG, Assistant Professor of Hispanic Languages.
A. B. Minerva College (Philippine Islands), 1913; LL. B. Indiana, 1917; LL. M. Hamilton, 1919. Present position, 1920.

JOHN GODFREY STUTZ, Secretary of Municipal Reference Bureau.
Ph. B. Chicago, 1920. Present position, 1920.

HENRY WERNER, Assistant Professor of Chemistry.
Liverpool Technical School, 1904-'07; Physikalisher Verein Chemical School, Frankfurt, 1907-'09; University of Liverpool, 1909-'13. Present position, 1920.

EARNEST BOYCE, Assistant Engineer, State Board of Health.
B. S. in C. E. Ames, 1917. Present position, 1920.

FRED JOSEPH MECHLIN, Assistant Professor of Chemistry.
B. S. Allegheny, 1914. Present position, 1920.

JOSEPH WERTHEIMER, Assistant Professor of Chemistry.
B. S. in Metallurgy, Case School of Applied Science, 1916. Present position, 1920.

LOUISE ANDERSON MACDONALD, Assistant Professor of the Teaching of English.
A. B. Iowa State Teachers' College, 1907; A. M. Iowa, 1912. Instructor, Idaho State Normal, 1912-'14; Assistant Professor, Wyoming, 1914-'18. Present position, second semester, 1920.

INSTRUCTORS.

LALIA VIOLA WALLING, Instructor in Physiology.
A. B., A. M. Kansas, 1907. Present position, 1908.

ESTHER WILSON, Instructor in Rhetoric.
A. B. Kansas, 1901; A. M. Kansas, 1902. Instructor in German, Kansas, 1908-'18. Present position, 1918.

HELEN RHODA HOOPES, Instructor in Rhetoric.
A. B. Kansas, 1913; A. M. Kansas, 1914. Present position, 1914.

CAROLINE BAUMANN SPANGLER, Instructor in Rhetoric.
B. D. Kansas, 1881; A. B. Kansas, 1883. Instructor in German, Kansas, 1914-'19. Present position, 1919.

OSCAR ROCKLUND, Instructor in Machine Construction, and Superintendent of Fowler Shops.
Instructor in Machine Construction, 1913-'19. Present position, 1919.

ELBERT LEE TREECE, Instructor in Bacteriology.
B. S. Kansas, 1916. Present position, 1917.

CORNELIA MITCHELL DOWNS, Instructor in Bacteriology.
B. S. Kansas, 1916. Present position, 1917.

HARRY ALLAN FORNEY, Instructor in Machine Construction.
Present position, 1917.

ANNA MARM, Instructor in Mathematics.
A. B. Bethany College, 1909; A. M. Kansas, 1918. Present position, 1918.

FLORENCE BLACK, Instructor in Mathematics.
A. B. Kansas, 1913. Present position, 1918.

HENRY ARTHUR SHINN, Instructor in Public Speaking.
A. B. Kansas, 1916. Present position, 1918.

MINERVA C. HALL, Instructor in Public School Music.

New England Conservatory, 1904; American Institute of Normal Methods, Northwestern, 1907. Instructor in Music, Illinois State Normal, 1914-'16; Director High School Music and Instructor in Public School Music, Washburn, 1916-'18. Present position, 1918.

ARTHUR REED BAILEY, Instructor in Machine Construction.

Present position, 1918.

ALBERT CHARLES RUTHERFORD, Instructor in Machine Construction.

Present position, 1918.

NELLIE BARNES, Instructor in Rhetoric.

A. B. Kansas, 1916. Present position, 1918.

JUSTICE NEALE CARMAN, Instructor in Romance Languages.

A. B. Kansas, 1917. Present position, 1918.

ADELAIDE STEGER, Instructor in Physical Education.

A. B. Arizona, 1918. Present position, 1918.

E. AMBROSE WHITE, Custodian and Instructor in Chemistry.

M. S. Kansas, 1909. Present position, 1918.

CLIFFORD C. NESSELRODE, Instructor in Surgical Anatomy.

M. D. Kansas, 1906. Present position, 1905.

LAURENCE A. LYNCH,[12] Instructor in Medicine.

M. D. Creighton, 1914. Present position, 1918.

JOSEPH B. COWHERD, Instructor in Medicine.

M. D. ——, 19—. Present position, 1918.

HARVEY P. BOUGHNOU, Instructor in Medicine.

M. D. ——, 19—. Present position, 1918.

WILSON A. MYERS, Instructor in Medicine.

M. D. ——, 19—. Present position, 1918.

JAMES BERNARD MCNAUGHT, Instructor in Bacteriology.

A. B. Kansas, 1917; A. M. Kansas, 1917. Present position, 1919.

CARL A. SWANSON, Instructor in Romance Languages.

A. B. Kansas, 1917. Present position, 1919.

FLORENCE MARILLA CATE, Instructor in Romance Languages.

Ph. B. Morningside Col., Iowa, 1902; A. M. Michigan, 1912. Professor, Latin, Southwestern, 1906-'15; Professor, Latin and Romance Languages, Southwestern, 1915-'19. Present position, 1919.

GUSTAVE FREDERIC SODERLUND, Instructor in Piano and Organ.

Pupil R. Anderson, Stockholm, 1903; A. Allin. Aarhus, 1904; Alberto Jonas, 1916; Theory with E. Akerberg, Stockholm, 1904. Director, Conservatory of Music, Valparaiso, Chile, 1910-'15; Instructor in Piano, Fort Hays Normal, 1918-'19. Present position, 1919.

SEVERIEN Z. HERB, Instructor in Band Instruments, and Director of University Band.

First chair, Bass, Innes' Band, four seasons, 1901-'04; Brooke's Chicago Marine Band, 1905-'07; Weil's St. Louis World's Fair Band, 1907-'08; Director Kansas State Reformatory Band, 1908-'18; Director Fourth Infantry Band, Fairfield, Iowa, 1919. Present position, 1919.

ARTHUR GROVER BYRNS, Instructor in Hispanic Languages.

B. S. Purdue, 1898. Instructor, French and Spanish, Belt's Academy, Connecticut, 1907-'08. Present position, 1919.

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12. Deceased, December, 1920.

AGNES MARIE BRADY, Instructor in Hispanic Languages.

A. B. Kansas, 1918. Assistant Instructor, Kansas, third quarter, 1918-19. Present position, 1919.

JESSIE ALICE CLINE, Instructor in Home Economics.

B. S. in Education, Missouri, 1915; A. B. Missouri, 1916; Graduate Assistant, Missouri, 1916; Research Assistant, Missouri, 1918 (Summer). Instructor, Missouri, 1919 (Summer). Present position, 1919.

ORA LOUELLA WEBB, Instructor in Home Economics.

A. B. Kansas, 1919. Present position, 1919.

VIRGIL W. MCCARTY, Instructor in Otorhinolaryngology.

A. B. Kansas, 1909; M. D. Kansas, 1912. Assistant in Otorhinolaryngology, Kansas, 1918-'19. Present position, 1919.

HAZEL MACGREGOR RICE, Instructor in Mathematics.

A. B. Yankton College, 1906; A. M. University of Illinois, 1909. Instructor in Mathematics, Kansas, 1911-'14; 1917-'18. Present position, 1919.

NATHAN HARLAN HUFFMAN, Instructor in Hispanic Languages.

A. B. Kansas, 1919. Present position, 1919.

GEORGIA TUCKER, Technician, Dispensary Laboratory.

Present position, 1919.

BEN ELI BROWN, Instructor in Physics.

A. B. Kansas, 1917. Present position, 1919.

PAUL M. KRALL, Instructor in Medicine.

M. D. St. Louis U., 1912. Present position, 1919.

JAMES RALPH FOSTER, Instructor in Rhetoric.

A. B. Drury, 1913; A. M. Kansas, 1916. Assistant Instructor in Rhetoric, Kansas, 1919-'20. Present position, 1920.

WARREN RANDOLPH NEUMANN, Instructor in Electrical Engineering.

B. S. in E. E., Kansas, 1918. Present position, 1920 (second semester).

ROY TOWNE, Instructor in Romance Languages.

A. B. Brown, 1905; A. M. Brown, 1910. Professor of Greek, Hamline, 1909-'15; Professor of Greek and Latin, Washburn, 1915-'19. Present position, 1920 (second semester).

MORA MORELAND PECK, Instructor in Harp.

Pupil of Carlos Salzedo. Instructor in Harp, Kansas City Conservatory of Music, 1916-'20. Present position, 1920 (second semester).

SAM H. SNIDER, Instructor in Medicine.

A. B. Missouri, 1912; M. D. Washington, 1914. Present position, 1919 (second semester).

EARL POTTER, Instructor in Journalism, and Director of Publicity.

A. B. Kansas, 1913. Present position, 1920 (second semester).

CREOLA FORD, Instructor in Piano.

Mus. B. Kansas, 1911; Graduate New England Conservatory, 1915. Instructor, Stetson University, 1915-'17; Lake Erie College, 1918-'19; William Woods College, 1919-'20. Present position, 1920.

MARY RUTH ALMACK, Instructor in Psychology.

B. A. Ohio State, 1915; M. A. Ohio State, 1916. Demonstrator in Experimental Psychology, Bryn Mawr, 1918-'20. Present position, 1920.

THOMAS BRAVAIS HENRY, Instructor in Mathematics.

A. B. Kansas, 1898. Present position, 1920.

WEALTHY BABCOCK, Instructor in Mathematics.

A. B. Kansas, 1919. Present position, 1920.

ETHEL ANN JONES, Instructor in Chemistry.
A. B. Kansas, 1913; A. M. Kansas, 1916. Instructor in Chemistry, Oregon Agricultural College, 1919-'20. Present position, 1920.

PHILIP ADNA READIO, Instructor in Entomology.
B. S. Mass. A. C., 1920. Present position, 1920.

KATHERINE REDING, Instructor in Hispanic Languages.
A. B. Kansas, 1918; A. M. Kansas, 1920. Present position, 1920.

MIGUEL ANGEL UMANA, Instructor in Hispanic Languages.
Bachiller, Liceo de Costa Rica, 1915. Instructor, Colegio Montero, San José, Costa Rico, 1917. Present position, 1920.

RAYMOND HAMILTON CARPENTER, Instructor in Mathematics.
A. B. Washburn, 1916; A. M. Kansas, 1917. Present position, 1920.

NINA MILDRED MCLATCHEY, Instructor in Mathematics.
A. B. Washburn, 1911. Present position, 1920.

NELLIE MARY YOUNG, Instructor in Mathematics.
A. B. Kansas, 1920. Present position, 1920.

ALICE MELVIN,[13] Instructor in Rhetoric.
A. B. McGill, Montreal, 1916; A. M. Pennsylvania, 1919. Present position, 1920.

MARGARET MITCHELL, Instructor in Rhetoric.
A. B. Kansas, 1919; A. M. Columbia, 1921. Present position, 1920.

CECIL LEWIS REW, Instructor in Romance Languages.
Ph. B. Chicago, 1919. Instructor in French, Culver, 1920. Present position, 1920.

JACQUES LEON SALVAN, Instructor in Romance Languages.
Certificat d'études secondaires, Sain-Jean d'Angely, 1914; Bachelier ès lettres, Poitiers, 1916. Assistant Instructor, Wisconsin, 1919-'20. Present position, 1920.

NEWELL E. WIEDEMANN, Instructor in Architecture.
B. S. in Architecture, Illinois, 1920. Present position, 1920.

EDNA HASELTINE, Instructor in Voice.
B. S. Drury, 1909; New England Conservatory; Pupil of d'Aubigne and Emma Calve. Instructor in Voice, State Normal, Colorado, 1918-'20. Present position, 1920.

W. REX SCHREINER, Bacteriologist, Water and Sewage Laboratory.
B. S. Kansas, 1912.

HELEN OGDEN MAHIN, Instructor in Journalism.
A. B. De Pauw, 1909; A. M. Michigan, 1915; Ph. D. Michigan, 1920. Instructor, De Pauw, 1909-'13; Colorado College, 1913-'14; Goucher, 1916-'17; Assistant Professor Carlton College, 1918-'19. Present position, 1920.

CORA DOLBEE, Instructor in Rhetoric.
A. B. Kansas, 1908; A. M. Kansas, 1911. Assistant Professor of Teaching of English, Kansas, 1917-'18. Present position, 1920.

MILTON SIDNEY HEATH, Instructor in Economics and Commerce.
A. B. Kansas, 1920. Present position, 1920.

GERTRUDE FRAME,[14] Instructor in Physical Education.
Present position, 1920.

WILLIAM EVERETT WRIGHT, Technician in Physiology.
Present position, 1920.

DOROTHY NICHOLS GREENE, Instructor in Rhetoric.
A. B. Wisconsin, 1919; A. M. Wisconsin, 1920. Present position, 1920.

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13. Deceased, May, 1921.
14. Resigned at the end of the first semester.

DELBERT MARTIN MANN, Instructor in Sociology.
A. B. Kansas, 1920. Instructor, Robert College, Constantinople, 1914-'17. Present position, 1920.

PAUL JOHN KORDES, Research Technician in Anatomy.
Technician in Anatomy, Marquette, 1916-'20. Present position, 1920.

WILLIAM JOSEPH DIXON, Instructor in Engineering Drawing.
Present position, 1920.

FERN BAILEY, Instructor in Rhetoric.
B. S. Knox College, 1910. Assistant in English, Knox, 1915-'16. Present position, 1920 (second semester).

ALGO DONMYER HENDERSON, Instructor in Economics (Accounting).
Present position, 1920.

RUBY CLINE, Instructor in Physical Education.
B. S. in Ed. Missouri, 1918. Teaching Supervisor of Athletics, Missouri, 1919-'20. Present position, 1920 (second semester).

VERA GRACE SMITH, Instructor in Zoölogy.
A. B. Kansas, 1920. Present position, 1920.

HOUGHTON CRANFORD SMITH, Instructor in Drawing and Painting.
Pupil of George Bridgman, Jean Paul Laurens, Charles W. Hawthorne, William M. Chase, Ambrose Webster, George Elmer Browne. Present position, 1920 (second semester).

GEORGE LEONARD HARRINGTON, Instructor in Medicine.
M. D. Kansas, 1908. Present position, 1920 (second semester).

JOHN WILLIAM BUNN, Instructor in Engineering Drawing.
B. S. in M. E. Kansas, 1921. Present position, 1920 (second semester).

MARTHA HARDIN, Superintendent, Bell Memorial Hospital.
R. N. St. Luke's Hospital, New York. Present position, 1920.

EVERETT DUANE KIEFER, Instructor in Biochemistry.
A. B. Kansas, 1921. Present position, 1920 (second semester).

GEORGE EDWIN KNAPPENBERGER, Instructor in Roentgenology.
M. D. Kansas, 1911. Present position, 1920 (second semester).

JOHN MILTON SINGLETON, Instructor in Gynecology and Obstetrics.
M. D. Tulane, 1917. Present position, 1920 (second semester).

ASSISTANT INSTRUCTORS.

LARRY M. PEACE, Preparator and Demonstrator in the Botanical Laboratory.
A. B. Kansas, 1901; A. M. Kansas, 1906. Present position, 1902.

HANDEL T. MARTIN, Assistant Curator of Paleontology.
Present position, 1907.

CHARLES D. BUNKER, Assistant Curator of Mammals, Birds and Fishes.
A. B. Kansas, 1901; A. M. Kansas, 1906. Present position, 1907.

BESSIE DOUTHITT REED,[15] Assistant Instructor in Zoölogy.
A. B. Kansas, 1919. Present position, 1917.

EDGAR E. PICKENS, Assistant in Ophthalmology.
M. D. Nashville, 1901. Present position, 1917.

FRED CROSBY RUMSEY, Assistant in Surgery.
M. D. Kansas, 1909. Present position, 1918.

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15. Resigned, November 30, 1920.

JOHN LLEWELLYN MYERS, Dispensary Attendant.
A. B. Park College, 1901; M. D. Kansas City College of Physicians and Surgeons, 1904. Present position, 1918.

ADA G. EHRMAN, Assistant in Dispensary, Bell Memorial Hospital.
R. N., Kansas, 1919. Present position, 1918.

KATE NOBLE, Record Clerk, Bell Memorial Hospital.
R. N., Kansas, 1915. Present position, 1918.

ROBERT MURRAY ISENBERGER, Demonstrator in Physiology.
A. B. Kansas, 1918. Present position, 1919.

JOHN HERMAN KORB, Assistant Instructor in Physiology.
B. S. Kansas, 1920. Present position, 1919.

EDWIN LEE WHITE, Assistant Instructor in Engineering Drawing.
Present position, 1919.

MYRA HULL, Instructor in Rhetoric.
A. B. Kansas, 1919. Assistant Instructor in Rhetoric, Kansas, 1919-'20. Present position, 1920.

HENRY NATHANIEL STONE, Technician in Anatomy.
Present position, 1919.

GRACE O. SCOTT, X-ray Nurse.
R. N., Kansas, 1915. Present position, 1919.

HERBERT ALEXANDER BARNBY, Assistant Chemist, State Chemical Research.
A. B. Kansas, 1920. Present position, 1919.

MARY LENORE BICKNELL, Assistant Instructor in Zoölogy.
A. B. De Pauw, 1919. Present position, 1919.

WILLIAM EDWIN HOFFMAN, Assistant Curator in Entomology.
A. B. Kansas, 1918. Present position, 1919.

RALPH MULVANEY BUFFINGTON, Assistant Instructor in Chemistry.
A. B. Kansas, 1918. Present position, 1919.

RUSSELL LEFFERD, Assistant Instructor in Machine Construction.
Present position, 1919 (second semester).

LUCY HACKMAN, Assistant Instructor in Entomology.
A. B. Kansas, 1920. Present position, 1920.

PAUL SAMUEL FOX, Assistant Instructor in Civil Engineering.
B. S. in C. E. Kansas, 1920. Present position, 1920.

WILLIAM FRED ASENDORF, Assistant Instructor in Chemistry.
B. S. in Chem. Eng. Kansas, 1919. Present position, 1920.

VERA PEACOCK, Assistant Instructor in Bacteriology.
Present position, 1920.

GEORGE LYNN, Laboratory Instructor in Chemistry.
B. S. in Chem. Eng. Kansas, 1921. Present position, 1920.

SEATON MARCELLUS LAW, Assistant Instructor in Chemistry.
A. B. Kansas, 1920. Present position, 1920.

THURSTON LEOWN JOHNSON, Assistant Bacteriologist, State Food Work.
A. B. Kansas, 1921. Present position, 1920.

IRENE CUTTER, Assistant Bacteriologist, State Food Work.
Present position, 1920.

ADOLPH BOESE, Assistant Instructor of Anatomy.
A. B. Kansas, 1920. Present position, 1920.

ROBERT MARION SIMMEL, Assistant Instructor in Chemistry.
A. B. Kansas, 1920. Present position, 1920.

ETHEL HUNTZINGER, Technician in Pathology.
A. B. Fairmount, 1917. Present position, 1920.

ROBERT GUNTERT, Field and Laboratory Assistant, Entomology, State Work.
Present position, 1920.

JOHN ROBERT WAHLSTEDT, Assistant Instructor in Engineering drawing.
B. S. in M. E. Kansas, 1921. Present position, 1920.

JAMES D. STRANATHAN, Assistant in Physics.
Present position, 1920.

CHESTER LONG, Assistant in Physics.
Present position, 1920.

WILLIAM LINDSAY MCPHERSON, Assistant Chemist, Water and Sewage Laboratory.
Present position, 1920.

NORA EMMA SILER, Assistant Instructor in Spanish.
Professor, College of Missions, Indianapolis, 1918-'20. Present position, 1920.

RUTH ENDACOTT BROWN, Laboratory Assistant in Physiology.
A. B. Kansas, 1918. Assistant instructor, Physiology, Kansas, 1918-'19. Present position, 1920.

JOHN MILTON ROBERTSON, Assistant Instructor in Engineering Drawing.
B. S. in M. E. Kansas, 1921. Present position, 1920.

ELLEN EUSTINA NELSON, Assistant Instructor in Chemistry.
B. S. K. S. A. C., 1911; A. B. Kansas, 1920. Present position, 1920.

GEORGE ALEXANDER MOSHCHANSKY, Assistant Instructor in Engineering Drawing.
B. S. in M. E. Kansas, 1921. Present position, 1920.

GEORGE LYNAM, Assistant Instructor in Rhetoric.
A. B. Kansas, 1920. Present position, 1920.

ESTHER BOELL SMITH, Assistant, State Food Laboratory.
B. S. Kansas State Agricultural College, 1914. Present position, 1920.

GRACE MARY SISSON,[16] Assistant Instructor in Zoölogy.
Ph. B. Syracuse, 1905. Present position, 1920.

THEODORE SESSINGHAUS ELIOT, Assistant Instructor in Zoölogy.
Present position, 1920 (second semester).

CLYDE DUNCAN STEVENSON, Assistant in Electrical Engineering.
B. S. Kansas, 1921. Present position, 1920 (second semester).

MABEL HALL, Operating-room Nurse, Bell Memorial Hospital.
R. N. Kansas, 1918. Present position, 1918.

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16. Resigned at the end of the first semester.

ROLL OF STUDENTS.

GRADUATE SCHOOL.

Abraham, L. J., B. S. '19, University of Kansas; Civil Engineering; Lawrence.
*Anthony, Gladys, A. B. '21, University of Kansas; Bacteriology; Le Loup.
Asendorf, William T., B. S. '19, University of Kansas; Chemistry; Garden Plain.
Babcock, Wealthy, A. B. '19, University of Kansas; Mathematics; Hollenberg.
Bally, Louis Henry, A. B. '20, Fairmount College; Bacteriology; Andover.
Bays, Martha E., A. M. '20, University of Kansas; Bacteriology; Eureka.
*Bermejo, Fernando, B. S. in Edu. '21, University of Kansas; Education; *Panay, Capiz, P. I.*
Black, Florence, A. B. '18, University of Kansas; Mathematics; Meade.
*Bleakley, Georgina, A. B. '21, University of Kansas; History; Lawrence.
Boell, Sarah J., B. S. '19, State Agricultural College; English; Wamego.
Boese, Adolph, A. B. '20, University of Kansas; Anatomy; Hillsboro.
Bower, Katherine M., B. S. '15, State Agricultural College; English; Manhattan.
Brady, Agnes, A. M. '20, University of Kansas; Hispanic Languages; *Kansas City, Mo.*
*Brown, Irwin S., A. B. '21, University of Kansas; Physiology; Lawrence.
Buffington, Ralph M., A. B. '18, University of Kansas; Chemistry; Ness City.
Bunn, John William, B. S. '20, University of Kansas; Mechanical Engineering; Lawrence.
Byrns, Arthur G., B. S. '98, Purdue; Hispanic Languages; Lawrence.
Carmen, Justice Neale, A. B. '18, University of Kansas; Romance Languages; Lawrence.
Carpenter, Raymond H., A. M. '17, University of Kansas; Mathematics; *Harwood, Mo.*
*Case, Naomi, A. B. '21, University of Kansas; Hispanic Languages; Arkansas City.
Church, Romulus, A. B. '20, University of Kansas; Philosophy; Pittsburg.
*Clark, Ethel C., A. B. '21, University of Kansas; Sociology; Lawrence.
*Convis, Dallas L., A. B. '21, University of Kansas; Philosophy; Burr Oak.
Downs, Cora M., A. B. '20, University of Kansas; Bacteriology; Lawrence.
Draper, Eleanor, A. B. '12, University of Kansas; History; Oswego.
*Eytchison, Vivian, A. B. '21, University of Kansas; English; Onaga.
Faris, Hervey Samuel, A. B. '18, Cooper College; Anatomy; Sterling.
*Ferris, Florence E., A. B. '21, University of Kansas; History; Lawrence.
Fowler, Edward Dodge, A. B. '13, William Jewell College; Political Science; *Excelsior Springs, Mo.*
Gibson, Sybil Marsh. A. B. '15, Radcliffe; Bacteriology and Pathology; *Kansas City, Mo.*
Gilmer, Paul McCullough, A. B. '08, Monmouth College; Entomology; Lawrence.
*Girard, Edeard G., A. B. '21, University of Kansas; Economics; Windom.
Griffing, Burgoyne, A. B. '21, Washburn College; Physics; Topeka.
*Griffith, Wm. H., A. B. '21, University of Kansas; Political Science; Pratt.
Gustafson, Fritz, A. B. '20, Bethany College; Chemistry; *Avoca, Tex.*
Hackman, Lucy M., A. B. '20, University of Kansas; Entomology; Lawrence.
Henry, Thomas B., A. B. '98, University of Kansas; Mathematics; Lawrence.
Heron, William T., A. B. '20, University of Kansas; Psychology; Burns.
*Hiatt, May Farr, B. S. '21, University of Kansas; English; *Kansas City, Mo.*
Hilsman, Itasca P., A. B. '17, University of Kansas; Entomology; *Albany, Ga.*
Hoffman, William Edwin, A. B. '18, University of Kansas; Entomology; Lawrence.
*Horr, Worthie H., University of Kansas; Botany; Lawrence.
Huffman, Nathan H., A. B. '19, University of Kansas; Hispanic Languages; Lawrence.
*Isenberger, Nate Perry, A. B. '21, University of Kansas; Geology; Salina.
Isenberger, Robert M., A. B. '18, University of Kansas; Physiology; Salina.
Jewell, Lorene Osborn, A. B. '15, Oberlin; Sociology; Lawrence.
Johnson, C. G. Harry, A. B. '20, Bethany College; Chemistry; St. Francis.
*Johnson, Thurston L., A. B. '21, University of Kansas; Biochemistry; Lawrence.
Jones, Gladys, A. B. '20, College of Emporia; Mathematics; Wichita.
King, Nancy Ann, B. S. '20, Oklahoma Mech. and Agr. College; English; *Enid, Okla.*
Korb, John Herman, A. M. '21, University of Kansas; Physiology; Lawrence.
Landon, Charles, A. B. '20, University of Kansas; Economics; Mayetta.
Law, Marcellus Seaton, A. B. '20, University of Kansas; Chemistry; Lawrence.
Lindley, Georgia Elizabeth, A. B. '19, University of Kansas; English; Lawrence.
Loflin, Ethel E., A. B. '15, University of Kansas; Home Economics; Ellis.
Lynam, George, A. B. '20, University of Kansas; Journalism; Moline.
Mahieu, Lucille Bailey, A. B. '19, University of Kansas; Psychology; Lawrence.
Mann, Delbert M., A. B. '20, University of Kansas; Sociology; Lawrence.
Marm, Anna, A. B. '09, Bethany College; Mathematics; Lindsborg.
Matthaei, Pearl V., A. B. '19, Central Wesleyan; Anatomy; Great Bend.
Maupin, Oakland L., A. B. '20, University of Kansas; Psychology; *Carrollton, Mo.*
McKinney, Mary Emma, A. B. '17, University of Kansas; Ancient Languages; Iola.

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* Seniors who have completed within ten credit hours sufficient work for the A. B. or B. S. degree.

McLatchey, Nina, A. B. '11, Washburn College; Mathematics; Topeka.
*McMurphy. John, A. B. '21, University of Kansas; Journalism; Madison.
Melvin, Virginia, A. B. '20, University of Kansas; Hispanic Languages; Lawrence.
*Merritt, Florence M., A. B. '21, University of Kansas; Home Economics; Lawrence.
Metsker, Sonora, B. S. in Educ. '20, University of Kansas; Kansas City.
Meuser, Mary Louise, B. S. '17, Emporia Normal; Home Economics; Paola.
Mickey, Marie, A. B. '20, Ottawa University; History; Morrill.
Moore, Leonard Charles, A. B. '19, University of Kansas; Bacteriology; *Blackwell, Okla.*
Musselman, Norman, A. B. '18, University of Nebraska; Geology; Arkansas City.
Nelson, Ellen, B. S. '11, State Agricultural College; Physiology; Randolph.
*Nelson, Marguerite, A. B. '21, University of Kansas; Geology; *Oklahoma City, Okla.*
O'Brien, Livia E. F., A. M. '19, Columbia; Psychology; Lawrence.
Oldendick, Harry H., A. B. '13, Pittsburg Normal; Education; *Kansas City, Mo.*
Osterhout, F. W., A. B. '15, Baker University; Education (Field Work); Lansing.
*Pease, Cecil Clair, University of Kansas; Geology; Topeka.
Pollard, James H., A. B. '15, William Jewell College; Education; Lawrence.
Queen, Minta, A. B. '20, Southwestern College; Sociology; Winfield.
Readio, Philip A., B. S. '20, Massachusetts Agricultural College; Entomology; *Florence, Mass.*
*Rice, Anita B., A. B. '21, University of Kansas; History; Lawrence.
Ross, Mrs. Warren L., A. B. '13, University of Kansas; English; St. John.
Salvan, Jacques Leon, A. B. '16, University of Portiers, France, English; Lawrence.
Schoewe, Mrs. W. H., M. S. '19, University of Iowa, Physics; Lawrence.
*Scott, Anna Louise, A. B. '21, University of Kansas; History; Burlington.
Scott James Haddock, A. B. '20, Cooper College; Ancient Languages; Sterling.
Sears, Lloyd Cline, A. B. '19, Oklahoma University; English; Harper.
Sheppard, Earl A., A. M. '20, University of Oklahoma; Sociology; *Cordell, Okla.*
Shores, Belva A., A. B. '20, University of Kansas; Hispanic Languages; Burr Oak.
*Simon, Carl L., A. B. '21, University of Kansas; Economics; Preston.
Smith, Esther Beoll, B. S. '14, State Agricultural College; Chemistry; Wamego.
Smith, Fern, A. B. '20, Baker University; Mathematics; Wellsville.
Smith, Vera Grace, A. B. '20, University of Kansas; Zoölogy; Morland.
*Stevenson, Edward, A. B. '20, University of Kansas; Bacteriology; Lawrence.
Stimmel, Robert M., A. B. '20, ————; Chemistry; Mullinville.
Spencer, Ray Paul, A. B. '21, University of Kansas; Geology; Lawrence.
*Stone Anna, A. B. '21, University of Kansas; Bacteriology; Lawrence.
Strickler, Ruth, A. B. '15, College of Emporia, Mathematics; Emporia.
Swanson, Arthur M., B. S. in Education '19, University of Kansas; *Kansas City, Mo.*
Swanson, Nina M., A. B. '17, McPherson College; Sociology; McPherson.
Tester, Allen Crawford, A. B. '20, University of Kansas; Geology; Lawrence.
Thompson, Martha, A. B. '20, University of Kansas; Romance Languages; *Kansas City, Mo.*
*Tiemann, Freda, A. B. '21, University of Kansas; Chemistry; Woodbine.
Tillman, Marcia Edythe, B. S. '16, State Agricultural College; Chemistry; Manhattan.
Timmins, Vaughn E., A. B. '20, University of Kansas; Sociology; Kansas City.
Towne, Roy, A. M. '10, Brown University; Romance Languages; Lawrence.
Treece, E. Lee, B. S. '15, University of Kansas; Physiology; Centerville.
*Uhrlaub, Ernst, A. B. '21, University of Kansas; Mathematics; Lawrence.
Uhlrich, Elizabeth Lucile, A. B. '17, University of Kansas; English; Lawrence.
Van Sandt, Eileen, A. B. '20, University of Kansas; Hispanic Languages; Chanute.
Walker, Robert Scott, A. B. '17, University of Oklahoma; History; *Chicago, Ill.*
Watson, Charles Hoyt, A. B. '18, University of Kansas; Education and Chemistry; Lawrence.
Weltmer, Loren Edward, A. B. '19, University of Kansas; Political Science; Smith Center.
*Wenzel, Anna, A. B. '21, University of Kansas; Bacteriology; Herndon.
Wing, Monta Eldo, A. B. '20; University of Kansas; Geology; Columbus.
Wright, Elizabeth E., A. B., Washburn College; English; Topeka.
Yang, Shu Ya, A. B. '20, Park College; Bacteriology; Lawrence.
*Young, Nellie M., A. B. '21, University of Kansas; Mathematics; Seneca.

GRADUATE STUDENTS, SUMMER SESSION, 1920.

Alsop, Inez. B. S. in Educ. '16, Emporia State Normal; Education; Wakefield.
Anderson, Essie Jane, B. S. '17, Kansas Agricultural College; Education; Lawrence.
Andrews, Mary E., A. B. '13, University of Kansas; English; Powhattan.
Atkeson, George Longdon, B. S. in Educ. '18, Emporia State Normal; Education; Yates Center.
Barbee, Frederick H., B. S. in Educ. '10, University of Missouri; Sociology; *Kansas City, Mo.*
Bennett, Edward Earl, A. B. '16, University of Kansas; Education; Stafford.
Boell, Sara J, B. S. '19, Kansas Agricultural College; English; Wamego.
Bower, Katherine M., B. S. '15, Kansas State Agricultural College; English; Manhattan.
Brock, Edythe M., B. S. in Educ. '16, Emporia State Normal; Ancient Languages; Nortonville.
Bromell, George D., A. B. '19, Kansas City University; Sociology; Kansas City.
Brown, Elizabeth Tenaxi, A. B. '08 Emporia State Normal; Education; Emporia.
Byrns, Arthur Grover, B. S. '98, Purdue University; Hispanic Languages; Lawrence.

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* Students who have completed within ten credit hours sufficient work for A. B. or B. S. degree.

Carman, Neale J., A. B. '18, University of Kansas; Romance Languages; Lawrence.
Cates, Ada E., A. B. '06, University of Kansas; English; Independence.
Chandler, J. R., B. S. in Educ. '15, Emporia State Normal; Education; Eskridge.
Collins, Lloyd M., B. S. '17, Kansas Manual Training; Education; Iola.
Crawford, Marie, A. B. '15, Washburn College; French; Topeka.
Crotty, Henrietta, A. B. '14, Kansas Manual Training; Ancient Languages; Pittsburg.
Davis, Richard Omer, A. B. '99, University of Kentucky; Education; Merriam.
Devore, Rollin E., A. B. '15, Baker University; Education; Everett.
Dixon, Flo, Ph. B. '07, Baker University; Education; Kansas City.
Douglas, Emma M., A. B. '10, Valparaiso University; Hispanic Languages; St. John.
Douglas, Jessie, A. B. '19, Washburn College; English; *Enid, Okla.*
Draper, William E., Ph. D. '20, University of Kansas; Psychology; Lawrence.
Erb, Mrs. Paul, A. B. '12, Goshen College; Education; Hesston.
Erb, Paul, A. B. '18, Bethel College; English; Hesston.
Evans, Benjamin Eugene, A. B. '19, Cooper College; Chemistry; Sterling.
Evans, Roscoe C., A. B. '17, Oklahoma University; Psychology; *Vinita, Okla.*
Flinn, Ruby Vee, A. B. '13, University of Kansas; Education; Chanute.
Foster, Cornelius, B. S. in Educ. '16, Emporia State Normal; Education; Waverly.
Fowler, Edward Dodge, A. B. '13, William Jewell College; Political Science; *Excelsior Springs, Mo.*
Frederick, James Vincent, A. B. '19, University of Kansas; Education; Bonner Springs.
Friesen, J. V., A. B. '16, Bethel College; Education; Canton.
Gear, Benjamin H., B. S. '20, State Manual Training School; Education; Penalosa.
Givin, Grace Eleanor, A. B. '14, University of Kansas; Education; Manhattan.
Glasco, Maude Eleanor, A. B. '20, University of Kansas; Education; ————.
Godding, Frank E., A. B. '16, University of Kansas; Education; Lawrence.
Hackman, Lucy, A. B. '20, University of Kansas; Entomology; Lawrence.
Hamill, Elma Grace, A. B. '14, Cooper College; English; Sterling.
Haynes, Violet, A. B., University of Kansas; English; Emporia.
Healey, Florence, A. B. '14, University of Kansas; English; Wilson.
Herron, Allen M., '16, University of Kansas; Education; Eureka.
Hess, Edith Idella, A. B. '19, University of Kansas; Economics; Lawrence.
Hill, Charles Warren, A. B. '14, Friends University; Mathematics; Eudora.
Hill, Eunice, A. B. '19, Friends University; French; Eudora.
Hoar, Ethel M., A. B. '05, University of Kansas; English; Lawrence.
Hooker, Minnie L., B. L. '87, Stephens College; Education; ————.
Hoover, William Thomas, B. S. in Educ. '98, Warrensburg Normal; Entomology; Mound City.
Horne, Samuel Henry, A. B. '07, University of Chicago; Education; *Enid, Okla.*
Hoffman, Nathan H., A. B. '19, University of Kansas; Spanish; Lawrence.
Huston, Harry E. K., A. B. '05, Southwestern College; Education; Winfield.
Hutton, Oscar Douglas, A. B. '12, Hust College; Education; *Atoka, Okla.*
Isenberger, Robert Murray, A. B. '18, University of Kansas; Physiology; Salina.
Jenkins, J. K., Ph. M. '90, Mount Union College; Education; Staffordsville.
Jevons, Beulah Helen, B. S. '15, State Normal School; History; Wakefield.
Jewell, Lorene Osborne, A. B. '15, Oberlin College; Sociology; Lawrence.
Jones, Alexander Henry, A. B. '05, Wilberforce University; Education; Quindaro.
Kinney, Ethel May, A. M. '20, University of Kansas; Physiology; Lawrence.
Korb, John Herman, B. S. '19, University of Kansas; Physiology; Lawrence.
Kretsch, Charlotte, A. B. '15, University of Kansas; English; *Perry, Okla.*
Landis, May, A. B. '00, University of Kansas; Education; Lawrence.
Larimer, Ruth, A. B. '19, University of Michigan; Education; Topeka.
Law, Marcellus, A. B. '20, University; Chemistry; Lawrence.
Lewis, Benjamin Parker, A. B. '17, Univ. of Oklahoma; Mathematics; *Amber, Okla.*
Lindley, Georgia Elizabeth, A. B. '19, University of Kansas; English; Lawrence.
Lockwood, A. O., Ph. D. '04, Mt. Union College; Education; Baldwin.
Luby, William A., A. B. '05, University of Kansas; Mathematics; *Kansas City, Mo.*
Magnusson, Amanda, A. B. '17, Bethany College; Education; Lindsborg.
Malin, James C., A. B. '14, Baker University; Political Science; Lewis.
Mann, Delbert Martin, A. B. '20, University of Kansas; Sociology; Lawrence.
Marshall, George H., A. B. '17, University of Kansas; Education; Augusta.
Maupin, Hattie Belle, A. B. '07, Ottawa University; Education; Ottawa.
McCoy, Lucy F., A. B. '19, Kansas City University; Education; Kansas City.
McCrory, Maurice N., B. S. '18, State Normal School; Economics; Emporia.
McDuffee, Ophelia Lambert, A. B. '17, ————; Education; Topeka.
Mellenbruch, Pearl Leslie, A. B. '17, Midland College; Education; Lawrence.
Metsker, Sonora Tulena, B. S. in Educ., University of Kansas; Education; Lawrence.
Melvin, Virginia, A. B. '20, University of Kansas; Hispanic Languages; Lawrence.
Miller, Minnie M., B. S. '19, State Normal School; French; Council Grove.
Miller, Mabelle M., Ph. B. '15, University of Chicago; English; *Kansasa City, Mo.*
Mitchell, Claire W., A. B. '17, University of Kansas; Education; Geuda Springs.
Myers, Lannah H., A. B. '12, Campbell College; English; Liberal.
Naber, Peter, A. B. '19, Otterbein College; Mathematics; Miltonvale.
Nelson, Ellen E., A. M. '17, University of Washington; Physiology; Randolph.
Nelson, Lawrence Emerson, A. B. '16; William Jewell College; English; *Sioux City, Iowa.*
Nettles, Charles Henry, A. B. '20, University of Kansas; Chemistry; Topeka.
Nixon, Mabel, B. S. in Educ. '20, University of Kansas; Education; Lawrence.
Olander, Clifford Paul, A. B. '18, Washburn College; Chemistry; Topeka.
Oldendick, Harry H., A.B. '13, State Manual Training School; Education; *Kansas City, Mo.*
Palmer, Alice Helen, B. S. '17, State Manual Training School; History; Wellington.
Patty, F. Arthur, A. B. '20, University of Kansas, Bacteriology; Lawrence.

Patton, Fannie Orena, B. S. in Educ., State Normal School; Education; Topeka.
Peterson, John Oscar, A. B. '20, University of Kansas; Physics; Assaria.
Phelps, Elsie I., B. S. '19, State Manual Training School; English; Pittsburg.
Phillips, John Foster, A. B. '02, Southwestern College; Mathematics; Winfield.
Pollard, James Hybert, A. B. '15, William Jewell College; Education; Lawrence.
Rearick, Anna J., A. B. '20, University of Kansas; Education; Lawrence.
Reed, Carlos I., A. B. '15, Ohio State University; Physiology; Lawrence.
Reid, Alice, A. B. '13, Colorado Normal; Education; *Kansas City, Mo.*
Rhine, Orin Milton, A. B. '13, University of Kansas; Education; Oskaloosa.
Robertson, Dora, B. S. '16, State Manual Training School; English; Columbus.
Rose, Marion M., B. S. '19, State Manual Training School; Education; Fort Scott.
Sample, Sarah E., A. B. '93, Ottawa University; Education; Lawrence.
Scalapino, William, A. B. '16, University of Kansas; Education; Everett.
Scheer, George Erdman, A. B. '13, Baker University; Education; Kansas City.
Schmidt, A. B., A. M. '13, Oberlin College; Education; Inman.
Sheldon, Peryl, A. B. '15, Stanford University; English; ————.
Simpson, Charles Hoke, A. B. '00, University of Kansas; Education; Cassoday.
Sloan, James Carlos B. S. '16, State Normal School; Education; Eskridge.
Smith, Erma Anita, A. B. '20, University of Kansas; Physiology; Sharon.
Smith, Vera Grace, A. B. '20, University of Kansas; Zoölogy; Morland.
Snoddy, Clarice Adelaide, A. B. '04, Baker University; Sociology; Burlingame.
Snow, Riley E., ————; History; ————.
Sopher, Myrtle M., A. B. '18, University of Kansas; Education; Topeka.
Spangler, Irma B., A. B., University of Kansas; Economics; Lawrence.
Spicer, Miriam Russell, A. B. '18, University of Kansas; Chemistry; Lawrence.
Staton, Ida Estella, A. B. '18, University of Kansas; Spanish; Columbus.
Stevenson, Edward, A. B. '20, University of Kansas; Bacteriology; Lawrence.
Stewart, Olive Maude, A. B. '94, Baker University; German; Baldwin.
Stimmel, Robert Marion, A. B., University of Kansas; Chemistry; ————.
Storms, James Woods, B. S. '04, Oregon Agricultural College; Education; *Kansas City, Mo.*
Story, LeRoy G., A. B. '19, Nebraska Wesleyan; Chemistry; *Bloomington, Neb.*
Strem, Carl E. S., A. B. '17, University of Illinois; Biochemistry; Lawrence.
Swanson, Arthur Malcolm, B. S. Educ. '19, Kirskville Teachers' College; Education; *Kansas City, Mo.*
Sweigert, Gladys Naomi. A. B. '20, University of Kansas; Education; *Kansas City, Mo.*
Taylor, James Ross, A. B. '20, University of Kansas; Economics; Oskaloosa.
Thompson, Daisy Ruth, A. B. '18, Cooper College; Chemistry; Sterling.
Thompson, William R., B. S. in Educ. '15, State Normal School; Education; Halstead.
Tompkins, M. H., A. B. '01, University of Kansas; Sociology; Kansas City.
Troster, Stella, A. B. '14, Park College; Education; Fredonia.
Van Slyck, Willard, A. B. '14, University of Kansas; Education; Topeka.
Wahlin, Edla Charlotte, A. B. '13, Bethany College; ————; Lindsborg.
Wahlin, Vendla, A. B. '19, Bethany College; ————; Lindsborg.
Waling, Lula Grace, A. B. '19, University of Kansas; Education; Lawrence.
Walling, Via, A. B. '17, University of Kansas; Sociology; Lawrence.
Watkins, George Earl, A. B. '18, McPherson College; Sociology; ————.
Wedell, Emilie, A. B. '19, University of Kansas; Education; Lawrence.
Wheeler, Frances, A. B. '12, Washburn College; Education; Topeka.
White, Ethel K., A. B. '20, University of Kansas; Entomology; Lawrence.
White, G. R. A. B. '11, Baker University; Education; Oswego.
Weiters, Alfred H., B. S. '17, ————; Bacteriology; Lawrence.
Wilson, Hazel Esther, A. B. '18, Southwestern; Education; Leoti.
Wilson, Elizabeth K., A. M. '20, University of Kansas; Sociology; *Kansas City, Mo.*
Wing, Monta Eldo, A. B. '20, University of Kansas; Geology; Columbus.
Walker, Woods Ellis, A. B. '12, Rust College; Education; *Tulsa, Okla.*
Woodard, Parke Harold, A. B. '18, University of Kansas; Physiology; Wichita.
Woodman, Sidney M., A. B. '12, University of Kansas; Education; Pleasanton.
Wright, Charles C., B. S., State Normal School; Education; Smith Center.
Wycoff, Glenn L., A. B. '12, Southwestern; Sociology; Conway Springs.
Zook, D. E., B. S. in Educ. '18, Missouri Teachers' College; Education; ————.

THE COLLEGE.

SENIORS.

Abbey, Frank Lincoln; Newton.
Adams, Marguerite; Lebanon.
Ainsworth, David; Lyons.
Alexander, Maye Marie; Oskaloosa.
Alter, Mrs. Ada McClelland; Lawrence.
Anderson, Ila Edna Louise; Lawrence.
Anderson, John Wesley; Salina.
Anthony, Laura Gladys; Wellsville.
Applegate, Aymee Agnes; Lawrence.
Armstrong, Housen Parr; Atchison.
Armstrong, Ruth Irene; McPherson.
Asher, Clinton Royce; St. John.
Bagby, Grace; Lawrence.
Baker, Fressa Sample; Wichita.
Baldwin, Wilbur C.; McPherson.
Bamberger, Bernice Fay; Fort Scott.
Barnes, John Roland; Kincaid.
Barnett, Helen Regina; Rosedale.
Bartel, Ferdinand Gerhard; Hillsboro.
Battersby, Editha Marie; Kansas City.
Baum, Theresa Rosa; Galena.
Beck, Ruth Elizabeth; Lawrence.
Becker, Luther; Meriden.
Beeler, Nellie Eleanora; Mankato.
Beiderwell, Earl R.; Edna.
Bell, Francys Eola; Leavenworth.
Bennett, Arthur Harry; Topeka.
Bennett, Marie Exxa; Kingsdown.
Bennett, Roy Sutton; Lawrence.
Bernstein, Julius; *Newark, N. J.*
Berry, Merlin Smith; Jewell.
Beyer, Lilah; Arrington.
Bishop, Melvin Paul; Lawrence.
Blackburn, Glessie D.; Stafford.
Blair, Donald C.; Beloit.
Blanke, Otto Theodore; Garden City.
Bleakley, Georgina E.; Lawrence.
Bliss, Florence E.; Lawrence.
Boyd, Joseph Warren; Arkansas City.
Boyer, Guy Maxwell; *Kansas City, Mo.*
Boyle, Joseph Essig; Bennington.
Breitag, Emma M.; *Kansas City, Mo.*
Bridgens, Bernice Pearl; *Kansas City, Mo.*
Bronaugh, LaVerne; *Kansas City, Mo.*
Brown, Irwin Schilling; Lawrence.
Brown, Marie Alberta; Lawrence.
Brown, Nita Linton; Lawrence.
Brubacher, Margaret; Wichita.
Brueck, William Thomas; Paola.
Brune, Frank Ezra; Lake View.
Burke, Lois Louise; Lawrence.
Burnett, Dorothy Lois; Linwood.
Bushnell, Hilda Corinne; Mound Valley.
Butcher, Fred D.; Lawrence.
Calvert, Frederick William; Plains.
Carey, Walter Ray; Osage City.
Carlgren, Florence; Concordia.
Carlin, Helen Margaret; Salina.
Carroll, Matthew Eldridge; Kansas City.
Carter, Esther Marian; Garden City.
Carter, Jean Cranston; Lawrence.
Carter, Mary Ota; Chanute.
Case, Goldie Ruth; Arkansas City.
Case, Naomi Marie; Arkansas City.
Casford, Ralph S.; Bird City.
Cates, Gladys; Iola.
Chain, Edna; Wichita.
Chestnut, Early Mast; Kincaid.
Christmore, Esther Clare; Edna.
Christoff, Minnie; Kansas City.
Clark, Ethel C.; Mankato.
Clark, Evelyn Hope; Fredonia.
Clark, Harry Ernest; *Kansas City, Mo.*
Cleveland, Lucile; Lawrence.
Cochran, Burt Emerson; Wichita.
Coghill, Robert DeWolf; Lawrence.
Coleberd, Robert Edward; Lawrence.
Coleman, Grace; Leavenworth.
Convis, Dallas Laverne; Burr Oak.
Cooke, Charles Harold; Wichita.
Coons, Carl; Lawrence.
Copeland, Leroy N.; Lawrence.
Correll, Loretta Pauline; Atwood.
Crim, Virginia Dickinson; Lawrence.
Curl, Grant Hobart; Osborne.
Cutter, Irene Elizabeth; Lawrence.
Dade, Emil Bryan; Nickerson.
Daniels, Andrew Guy; Pawnee Rock.
Davis, Kenneth Albert; Morganville.
Davis, Ruth; *Kansas City, Mo.*
Derge, Dorothy; Lebanon.
DeWolf, Henry Franklin; Garnett.
Earlenbaugh, Lawrence E.; Claflin.
Ellsworth, Willoughby Fred; Mound City.
Elvey, Christian Thomas; Coffeyville.
Engel, Dorothea Louise; Lawrence.
Engel, Herman Busch; Lawrence.
Estes, Arlie Wilber; Stafford.
Evans, Ralph W.; Leavenworth.
Eytchison, Vivian Belle; Onaga.
Fauders, Faith Amelia; El Dorado.
Felt, Margaret Rebecca; *Kansas City, Mo.*
Fengel, Jessie Frances; Abilene.
Ferguson, Samuel Henry; Atchison.
Ferris, Caryl; McPherson.
Ferris, Florence Evelyn; Lawrence.
Firestone, Maurine Estelle; Wichita.
Fitzgerald, Julia Marcella; Jamestown.
Fitzsimmons, Catherine Teresa; *Kansas City, Mo.*
Flagg, Paul Eldridge; Lawrence.
Fleer, Emma Ida; Baldwin.
Flynn, Frances Helene; Humboldt.
Foley, Catherine Mary; *Kansas City, Mo.*
Forman, Geo. W.; Alton.
Fox, Lenora Sarah; Greeley.
Fugate, Josephine; Lawrence.
Gaskill, Grace Helen; Lawrence.
Gillis, Bessie Beatrice; Garnett.
Girard, Edward Green; Windon.
Gottlieb, Ferdinand; Pleasanton.
Graham, Eugene Broderick; Holton.
Graves, Alfred James; Dodge City.
Gray, Ralph Monzingo; Summerfield.
Greef, Albert Otto; Pittsburg.
Griffith, William Henry; Pratt.
Grimsley, Bernice; Burlington.
Gross, Peter Samuel; *Kansas City, Mo.*
Gunn, Everett; Nickerson.
Haddock, Marshall, jr.; Rosedale.
Haelsig, Otto Herman; Eudora.
Hake, Helen; Des Moines, Iowa.
Hall, John Austin; *Amsterdam, Mo.*
Hamilton, Shirley Gonzales; Lawrence.
Handley, Leon Lampton; *Kansas City, Mo.*
Hanna, Lois Margaret; Clay Center.
Harms, Herbert A.; Wichita.
Harrington, Roscoe Samuel; Augusta.
Harrison, Alvie; Herington.
Harrison, William Henry; Downs.
Hart, George Marion; Lawrence.
Hawkins, Mary Beatrice; *Jasper, Mo.*

SENIORS—*Continued.*

Hay, Laurence Charles; Paola.
Hayslip, Elizabeth Elmina; Bethel.
Heath, Alan Earl; Tescott.
Heim, George Frederick, jr.; Ellinwood.
Helman, Richard Graham; *Kansas City, Mo.*
Heren, Walter Graff; Lawrence.
Hill, Mary Muriel; *Kansas City, Mo.*
Hitchcock, William H.; Augusta.
Hodson, Emery Loyd; Wichita.
Hoffman, Paul Davidson; Abilene.
Hogg, Ira D.; Lawrence.
Holland, Benjamin Leroy; Lawrence.
Holmberg, Corinne; Peabody.
Hoover, William Harold; Osborne.
Hopfer, Otto Emanuel; Sylvan Grove.
Hostetter, Lucky Wingert; Wellsville.
Howard, Marion Ruth; Cottonwood Falls.
Hubbard, Lena Irene; Minneapolis.
Huff, Bonnie Mae; Preston.
Hughes, Lawrence Douglass; Lawrence.
Hunter, Geneva Campbell; Lawrence.
Hunter, Julia Mary; Galena.
Husband, Myron William; McPherson.
Ishmael, Marjorie Ellen; Kiowa.
Jewett, John Mark; De Soto.
Joachim, Jerome; *Plainview, Minn.*
Johnson, Richard Melvin; Pittsburg.
Johnson, Samuel Chester; Eureka.
Johnson, Thurston Leoron; McPherson.
Jordan, Ella Marie; *Cheyenne, Wyo.*
Jordan, Gladys Dolores; Glasco.
Keck, Kenneth Fielman; *Wapello, Iowa.*
Keefer, Kathryn; Olathe.
Keys, Hollis Dodge; Beloit.
Kiefer, Everett Duane; Lawrence.
Kistler, John Joseph; Alta Vista.
Klapmeyer, Florence; *Kansas City, Mo.*
Knight, Durell, Kansas City.
Koehring, Dorothy May; Lawrence.
Kollmann, Jack Edward; *Kansas City, Mo.*
Kugler, Ernest William; Abilene.
Lacy, Blanche Mary; Lawrence.
Lake, Inez; Lake City.
Law, Florence Mildred; Lawrence.
Leavel, Ormand Ward; Leavenworth.
Lee, Frank Nelson; Kansas City.
Lee, George; Yates Center.
Lewis, Marion Florence; Lawrence.
Liggett, Winfield Freeman; Kansas City.
Little, Harley C.; Abilene.
Little, Herbert Blevis; Lawrence.
Lonergan, Flora Estella; Topeka.
Long, Hiram Chester; *Winston, Mo.*
Mack, Alberta; Lawrence.
Mackie, Martha; Lawrence.
MacMurray, Arthur Cooper; Lawrence.
Magill, Van Hooper; Lawrence.
Malott, Deane Waldo; Abilene.
Mandeville, Frank P.; Kingman.
Marshall, Earl Elmore; Elk City.
Marshall, Vivian; Leon.
Merritt, Florence Maude; Lawrence.
Mertz, Edna Pauline; Potwin.
Millare, Ulpanio; *Ruvapo, P. I.*
Miller, Blanche Helen; Lawrence.
Miller, Helen Bryant; Wichita.
Miller, Howard Leslie; Chanute.
Miller, Mary Louisa; Iola.
Minger, Ethel Louise; Bern.
Moren, Dorothy Celia; Lawrence.
Morgan, Murzelle; *Kansas City, Mo.*
Morrison, Ralph Edwin; Lawrence.
Mowrer, Loren Edgar; Lost Springs.
McCalmon, Charles; Lawrence.
McCurdy, Henry Benson; Lawrence.
McDonald, Ira Malcolm; Lawrence.
McFadden, Norma; Ottawa.
McIntire, George Franklin; Wichita.
McKee, Bruce E.; Lawrence.
McKinney, Marie Murr; Hoxie.
McMurphey, John William; Madison.
McVey, Roy Vernon; Mont Ida.
Nelson, Marguerite Isabell; *Oklahoma City, Okla.*
Nettels, Curtis Putnam; Topeka.
Nevitt, James Russell; Mildred.
Nichols, Helen Mavis; *Savannah, Mo.*
Nicholson, Helen J.; Lawrence.
Nicolet, Charles Cathcart; *Kansas City, Mo.*
Nigg, Clara Ida; Lawrence.
Noel, Sidney Quinn; Glasco.
O'Brien, Shamus; Florence.
Oder, Catherine Louise; Lawrence.
Olsen, Grace Marguerite; Lawrence.
Olsen, Mary Carolyn; Lawrence.
Olson, Helen Edith; Topeka.
Olsson, Elmer Linnaeus; Topeka.
Orr, Francis Currie; *Kansas City, Mo.*
Paine, Lita Mae; Admire.
Parker, Knowlton; Robinson.
Pate, Clarence Hugh; Walnut.
Patterson, Frank B.; Atchison.
Peacock, Vera Maude; Blue Rapids.
Pease, Cecil Clair; Topeka.
Peck, Helen Jule; Arkansas City.
Peckham, Edwina; Lawrence.
Pelton, Clara Alice; Caldwell.
Perkins, Alice Minerva; Howard.
Petteys, Iona; Newton.
Philipp, Herman Joseph; Wichita.
Phillips, Jean Anne; Wichita.
Pittman, Clara Amanda; *Hooker, Okla.*
Platz, Charles Ruffel; Eudora.
Porter, John McGill; Topeka.
Pounds, Donna Vivian; Coldwater.
Puffett, Dale Howard; Selma.
Pulliam, Paul Emmett; Lyons.
Pumphrey, Orpha; *Fort Worth, Tex.*
Pyle, Mary Llewellyn; Lawrence.
Quinlin, Virginia Josephine; Lawrence.
Quinn, Grace Katherine; McPherson.
Radotinsky, Ida; Kansas City.
Raffety, Charles Edward; Sylvan Grove.
Ramseyer, Margaret Josephine; Emporia.
Rankin, Zella Margaret; *Albuquerque, N. Mex.*
Rarig, Edith Lucile; Lawrence.
Rhodes, Pauline Ann; *Hennessey, Okla.*
Rice, Anita Bertha; Lawrence.
Rinehart, Hattie; Lawrence.
Ringle, Lloyd Clinton; Pittsburg.
Rising, Edna Rose; Lawrence.
Ritter, Cassandra; Iola.
Roberts, Harold Moore; Greensburg.
Robinson, Cecelia Margaret; Potter.
Rogers, Whitson Golton; Wellington.
Rosenfield, Josephine Helen; *Oklahoma City, Okla.*
Royer, Beula Anna; Gove.
Runnion, Rutherford Ray; Arcadia.
Sadler, May Irene; *Kansas City, Mo.*
Sangster, Charles Ford; Lyons.
Schafer, Sidonie Pauline; McPherson.
Schnitzler, Fritz William; Wichita.
Schoppe, Charles Vernon; *Pierce City, Mo.*
Schumann, Margaretha; Lawrence.
Schwartzkopf, Edward A.; Bison.
Schwarz, Joseph J.; *Kansas City, Mo.*
Scott, Anna Louise; Burlington.
Shafer, Jeannette; Lawrence.
Shaklee, Marie Elsie; *Waukomis, Okla.*
Shannon, Winifred; Iola.
Shaw, Verna Mae; McPherson.
Sheppard, Reba Ellen; *Lamar, Mo.*

SENIORS—*Concluded.*

Shire, Sara Ruth; Lincoln.
Shofstall, Charles K.; Kansas City.
Shout, Leland Morton; Lawrence.
Smith, Bessie; Pratt.
Smith, Meda Estella; Paola.
Smith, Theodore Soper; Kansas City.
Smith, Xenophon Palmer; *Kansas City, Mo.*
Smith, Zuma Zeda; Kansas City.
Snead, Gladys Lucile; Council Grove.
Snyder, Ivan Virgil; Norton.
Songer, Irene Maud; *Kansas City, Mo.*
Spencer, Ray Paul; Greeley.
Stacey, Frank Baker; Leavenworth.
Stannard, Lillian May; Emporia.
Statler, Katherine C.; Strong City.
Stauffer, Nina Aldean; Randall.
Steininger, Herbert Marvin, *St. Joseph, Mo.*
Steininger, Vera Margaret; *St. Joseph, Mo.*
Sterling, John Andrew; Carlton.
Stiver, Una Mary; Council Grove.
Stone, Anna; Lawrence.
Stone, Henry Nathaniel; Lawrence.
Strand, Lillie Olivia; Independence.
Strickland, Frances Wright; Hunnewell.
Swenson, Clarence Godfrey; *Kansas City, Mo.*
Swenson, Gilbert Oscar; Leonardville.
Syster, Ruth Isabelle; Hiawatha.
Teeter, Clifford Loraine; Dodge City.
Tenney, Asa Clifford; Kansas City.
Terrell, Epinetta Valeria; Lawrence.
Tester, Allen Crawford; Coffeyville.
Thom, Earl C.; Lawrence.
Thompson, Helen Louise; *Kansas City, Mo.*
Tiemann, Frieda Eulalia; Stafford.
Tien, Chu; *China.*
Tomlinson, Victor Rees; Independence.
Trusdale, Grace; Emporia.
Tucker, John H.; Lawrence.
Uhrlaub, Ernst August; Lawrence.
Vail, Helen Robison; *St. Joseph, Mo.*
Van Noy, Doris C.; Wichita.
Vermillion, Carl M.; Tescott.
Walbridge, Caroline Knickerbacker; Russell.
Walworth, Lawrence Alba; Lawrence.
Warring, Kathleen Frances; *Kansas City, Mo.*
Wasson, Margaret E.; *Cleveland, Okla.*
Weibel, Nadene; Lawrence.
Welsh, Floyd Elmo; Lawrence.
Wenzel, Anna Marie; Hernden.
White, Marceo Antonio; Chanute.
Wilcox, Fred James; Cottonwood Falls.
Wilkerson, Vernon Alexander; Kansas City.
Williams, Esther; Lawrence.
Williams, Hariett Leah; Preston.
Wineinger, William Wesley; White Cloud.
Wirth, Bernard A.; Redwing.
Wishard, Mary Elizabeth; Iola.
Young, Nellie Mary; Seneca.
Young, Percy; Lawrence.
Ziesenis, Mrs. Harry Charles; Lawrence.

JUNIORS.

Akers, Merton T.; Lawrence.
Alford, David Robert; Leavenworth.
Ashley, Byron John; Pleasanton.
Atkinson, Janet; Lawrence.
Austin, James Barker; Cottonwood Falls.
Back, Fred Charles; Ellinwood.
Bainum, Ella Marguerite; *Kansas City, Mo.*
Baker, Marcia Helene; Wichita.
Ball, Cocha Mae; Mapleton.
Banta, Grace Frances; Oberlin.
Barksdale, Norval Palmer; Kansas City.
Barnes, Lydia Belle; Burlington.
Baum, Ernest Eldon; Kansas City.
Baxter, Dorothy A.; *Kansas City, Mo.*
Beal, Beatrice Sadie; Hamilton.
Beasley, Prentis Sargent; *Hooker, Okla.*
Beery, Virginia; Lawrence.
Bennett, Catherine; Ottawa.
Benson, Judd Charles; Wa Keeney.
Bernard, Clarence Rolla; Lawrence.
Bingaman, Esther Lionne; Ottawa.
Bingham, Dwight Hemenway; Junction City.
Binney, Robert Franklin; *Strawn, Tex.*
Bird, Edward H.; *Kansas City, Mo.*
Blair, Charles Allen; *Carthage, Mo.*
Blake, Ralph Burt; Wichita.
Blaker, Walter Smith; Pleasanton.
Block, Clarence Isaac; Moundridge.
Bloom, Helen Louise; Independence.
Bloss, Stewart Scott; Winfield.
Bornstein, Theodore; *Kansas City, Mo.*
Boughton, Ruth Gertrude; Lawrence.
Bowers, Mabel Irene; Downs.
Bowman, Mrs. Leah Miller; Lawrence.
Boyer, Irene Leona; *Kansas City, Mo.*
Boyle, Walter Jacob; Bennington.
Bracken, Marie Edith; *Kingfisher, Okla.*
Bradley, Everett L.; *Cherokee, Okla.*
Brick, Adolph H.; Wichita.
Brockway, Parker Woodward; Olathe.
Broadhead, Richard Garrett; Wakefield.
Brown, Donald Scott; Circleville.
Brown, Lela Lucile; Lawrence.
Brown, Mary Louise; Lawrence.
Brown, Roy Douglas; Sterling.
Brownback, Leanore; Hardtner.
Browne, Helen Josephine; Norton.
Browne, Vera Elizabeth; Lawrence.
Brunk, Leah; Almena.
Bryan, W. Leigh; Lawrence.
Buikstra, Cyrus Renzo; Ionia.
Cain, Gertrude Harry; *Kansas City, Mo.*
Calene, Raymond Millard; Sylvan Grove.
Campbell, Helen Mildred; Lawrence.
Campbell, Lyle Edgerly; Lawrence.
Carlson, Russell Conwell; Chanute.
Challiss, Kathryn; Atchison.
Chubb, Worth Leland; Baxter Springs.
Church, Verne Vezie; Lawrence.
Clarke, Jean; La Cygne.
Cochran, Dorothy; Wichita.
Cochran, Phil Knight; Pratt.
Coen, James Randolph; St. John.
Cole, Lucile Jeanette; Lawrence.
Collins, Byron Eugene; Topeka.
Collins, Doris Eunice; Lawrence.
Collins, Raymond Joy; *Boyero, Colo.*
Conboy, Marie Sarah; Stilwell.
Converse, Helen Ruth; Altoona.
Cooksey, Warren B.; Lawrence.
Copeland, Shirley Juanita; La Cygne.
Corn, Dennis Early; *Demorest, Ga.*
Cottrell, Ray Noel; Chanute.
Craig, Mrs. Judith Briggs; Lawrence.
Crandall, Lola Isabel; Le Roy.
Crane, Dorothy E.; Howard.
Custer, Cecil Cicero; Cedar Vale.
Dana, Jessie Ellen; Lawrence.
Dana Marshall; Lawrence.
Day, Willard Leslie; Abilene.
Desmond, William Myron; Greeley.
Dickinson, Edward Stanley; Burlington.
Dietrich, Harold Eugene; Ottawa.
Docking, Alice; Lawrence.
Doering, Kathleen Clare; Lawrence.
Dougherty, Eulalia; Logan.
Dowell, Frank Simeon; Lawrence.
Drake, Doris La Zure; Ottawa.

JUNIORS—*Continued.*

Drake, Ralph Lafayette; Fort Scott.
Dutton, Stella Alegra; Lawrence.
Eastwood, Lorraine; *Okmulgee, Okla.*
Elliott, Maude Herriott; Lawrence.
Emberton, Odie Daniel; Rosedale.
Engle, Dorothy May; Abilene.
Erhardt, Charlotte Katheryn; *Kansas City, Mo.*
Etheridge, Hinda; Galena.
Evans, Leo.; Kansas City.
Fagan, Lowell Perry; Kansas City.
Fearing, Bascom Coolidge; Burr Oak.
Ferguson, Raymond Wheeler; Topeka.
Flater, Ruth Louise; Kansas City.
Forney, Leone; Abilene.
Fratcher, Charles Henry; *Kansas City, Mo.*
French, De Koven Alexander; Kansas City.
Frost, Inez Ochel; Lawrence.
Fugate, Jessamine Howell; Lawrence.
Fulton, Marjorie Elizabeth; Topeka.
Galloway, Georga Helen; Wa Keeney.
Garlichs, Richard Walton; *St. Joseph, Mo.*
Garrison, Regina; Wichita.
Garver, Ruth Jane; Topeka.
Garvin, Arthur Eugene; Erie.
Geiger, Alice Louise; Brookville.
Geiger, Lucy Marie; Brookville.
Gerstenberger, Herbert Alfred; Eudora.
Gibson, Harry V.; Wichita.
Gilmore, Mabel Jacqueline; Howard.
Glendinning, Jennie Blackly; Lawrence.
Glenn, Ervin Elmer; Sedan.
Googins, Mrs. Dorothy Armel; Humboldt.
Gottlieb, Selma; Pleasanton.
Gould, Frances Misner; Lawrence.
Graeber, Margaret Gladys; Lawrence.
Graves, Dorothy Otis; Eureka.
Gray, Claude Melwotte; Dodge City.
Gray, James Williams, jr., El Dorado.
Gray, Walter Evans, jr., Atchison.
Gray, Mrs. Beatrice Kreamer; Kansas City.
Geider, Ruth; Topeka.
Groff, Lola F.; Ellis.
Haas, Cecil; Albert.
Hall, Charles Ernest, jr.; Hutchinson.
Hannah, Anna Mildred; *Odessa, Mo.*
Hanscome, Anna Jeanette; Kingman.
Harkrader, Laura; Pratt.
Harlan, Mae Eleanor; Kansas City.
Harris, Kenneth Calvin; Garrison.
Harrison, Dan Brogue; Downs.
Hart, Crozier Satterthwaite; *Raton, N. M.*
Harterbower, Leotti K.; Douglass.
Hayden, James Richard Edward; Lexington.
Haynes, Mary Virginia; Emporia.
Heath, Gladys Esther; Wakefield.
Heizer, Charles; Osage City.
Hendren, William Cooper; *Tulsa, Okla.*
Henry, Shubert; Parsons.
Hilkey, Leone Catharine; Lawrence.
Hill, Lois Opal; Wichita.
Hindman, Albert Henry; Lawrence.
Hodges, Nadine; *Kansas City, Mo.*
Hogue, Helen Schenck; Olathe.
Holdman, Mary Louise; *Kansas City, Mo.*
Holland, Georgiana; Russell.
Hood, Kathlyn Agnes; Greenleaf.
Hood, Romana Elizabeth; Greenleaf.
Hook, Hugh Lyle; Sabetha.
Horney, Margaret Ann; Brewster.
Hough, Helen Louise; Mulvane.
Houghton, Emma Florence; Lawrence.
Hughes, Emmett Lionel; *Kansas City, Mo.*
Hughes, LeRoy; McPherson.
Hume, Harold Clay; Humboldt.
Humphrey, Anita J.; Chanute.
Husband, Wilfrid Laurier; McPherson.
Hussey, Theodore Matthew; Topeka.
Husted, Frank Gardner; *Osceola, Mo.*
Hyatt, Grace D. J.; *Kansas City, Mo.*
Ingham, Maurice Walters; Lawrence.
Ismert, Clement Anthony; Kansas City.
Jamison, John Henry; Idana.
Jenkins, Laura; Hunnewell.
Jeter, Esther; Alden.
Johnson, Eva Blanche; Irving.
Johnson, Vansel Stanley; Valley Falls.
Johnson, Willard; Leavenworth.
Johnston, Virginia May; *Texarkana, Ark.*
Jones, Edla Gaila; Florence.
Jones, George William; Council Grove.
Jones, Judge Ivison; Lawrence.
Keeler, Lora A.; Lawrence.
Keeven, John Patrick; Wathena.
Kendall, Louis Sylvester; Lawrence.
King, Edna Cooper; Wichita.
Kinkead, Frances Julia; Troy.
Koerper, Karl Reinhardt; Kansas City.
Kotler, Morris; Topeka.
Krehbiel, Jane; Moundridge.
Kunkel, Gladys Irene; Lawrence.
Lamar, Miriam; *Kansas City, Mo.*
Lamb, Edna Raymond; Concordia.
Landon, James Lawrence; Mayetta.
La Rue, Robert Hughes; Columbus.
Lashley, Floyd Johnson; Girard.
Layman, Hazel Bernadine; Hutchison.
Leady, Minerva; Kansas City.
Learned, Edmund Philip; Lawrence.
Lemon, Goldie May; Parker.
Light, Flora Detha; Winona.
Limb, Earl Raymond; Scammon.
Loflin, Beulah Eddeline; Ellis.
Logan, Albert Willard; Lebanon.
Logue, Ida Kent; Lawrence.
Long, Gladys Marguerite; Greenleaf.
Loudon, Earl Riley; Chapman.
Lynn, Nellie; Lawrence.
Lynn, Robert H.; Garden City.
Lytle, Homer Rice; Emporia.
Madden, Leo Larence; Effingham.
Malleis, Harry; Halstead.
Manker, Sanford Misner; Salina.
Marble, Alexander; Troy.
Marker, Daniel Isaac; Ozawkie.
Marks, F. Willis; Wichita.
Marsh, Helen Margaret; Norton.
Marshall, Hal Ellsworth; Elk City.
Martin, Lila Louise; Topeka.
Martindale, Jessie Ellen; Lawrence.
Marxen, Frank Adam; Piper.
Massey, Addison Richard; Horton.
Mather, Edward; Centralia.
Mathews, Velma E.; Kansas City.
Mathews, Margaret, Mary; Washington.
Mayberry, Burt Algernon; Wichita.
Medearis, Donald Norman; Kansas City.
Meeker, Bruce Paul; Wichita.
Middlekauff, Doris Margaret; Hays.
Mikesell, John P.; Atwood.
Miller, Ruth Mary; Cottonwood Falls.
Mincer, Lionel Albert; Sterling.
Mohrbacher, Norman Arthur; Marysville.
Moody, Dorothy Belle; Lenexa.
Moore, Thomas Edwin; *Kansas City, Mo.*
Mueller, Ralph Edward; Kansas City.
Murdock, Hilda Fletcher; Morse.
Myers, Francis Colville; Lawrence.
McBurney, Walter John; *Thomas, Okla.*
McClain, Margaret Catherine; Lawrence.
McCort, Waldo; Anson.
McCoy, Rathel Nora, Wamego.
McCullough, Charles John; Herington.
McCullough, Russell Lester; Chanute.
McGee, Philip Frederic; Lawrence.
McGuire, Grace; Meade.
McKibben, Harry Clinton; *Kansas City, Mo.*
McClain, Ernest Karl; Wellsville.
McNalley, Joseph Edward; Michigan Valley.

JUNIORS—*Concluded.*

McNulty, Frances Blanch; Coffeyville.
McPherson, William Lindsay; Wichita.
McVey, George Washington; Lawrence.
Neely, Allen Field; Topeka.
Nelson, Dorothy M.; *Kansas City, Mo.*
Nelson, Josephine; Lawrence.
Nelson, Norval Bryce; Hutchinson.
Newman, Pauline Emma; Fort Scott.
Newton, Clare Montgomery; Chetopa.
Nims, Arthur Lee; *Oklahoma City, Okla.*
Nipple, Florence Marie; Mulberry.
Noble, Isabel Tilton; Abilene.
Nunemaker, Irene; Brighton.
Oakes, Clarence Perry; Independence.
O'Brien, Mavis Pauline; Florence.
Osborn, John Lynn; Lawrence.
Oswald, Anthony Lewis; Hutchinson.
Owens, Kathrine Marie; Oxford.
Palmer, Harold William; Greeley.
Park, Anne Osborne; Atchison.
Parsley, Frank E.; Dodge City.
Pate, Ethel Mary; Walnut.
Penney, Alice Rita; Hays.
Penticuff, John Arthur, *Mt. Washington, Mo.*
Penwell, George Harvey; Larned.
Pester (Mrs.), Ruth Clark; Hillsboro.
Phipps, Harry Kipling; Chanute.
Pierce, Willard Brewer; *Kansas City, Mo.*
Pile, Clare Henrietta; Parsons.
Pitman, Will D.; *Enid, Okla.*
Poendexter, Mary Lourinda; Kansas City.
Powers, Chalton Ayers; Topeka.
Pringle, Roy Dean; Harveyville.
Pritchett, Frances; Kansas City.
Prosser, Francis Ware; Lawrence.
Puls, Pauline Marguerite; Wichita.
Ramsey; Ruth Lavinia; Fort Scott.
Reamer, Virgil Evan; Kansas City.
Redling, Robert Harry; Hoisington.
Reed, Agnes Lucile; Douglass.
Reed, Margaret Lee; Wichita.
Rees, Howell Thomas; Leoti.
Regier, Emil; Moundridge.
Renner, Frances A.; Lawrence.
Rewerts, Fred C.; Garden City.
Ridgeway, Bertrand Stout; Paola.
Rieger, Herbert; Wichita.
Riley, Wilson Morgan; *Kansas City, Mo.*
Robb, Mary Gertrude; Chapman.
Roberts, Gola Hiram; Fort Scott.
Robertson, Vina Lynn; *Silver City, N. Mex.*
Rody, George Edward; Downs.
Rogers, Riley Henry; Lawrence.
Rollow, R. Herbert; Russell.
Rosenbery, Augusta; *Kansas City, Mo.*
Rumberger, Helen Armena; Lawrence.
Ruppenthal, Lloyd Henry; Russell.
Russell, Marie; Scott City.
Sage, Irving; Alma.
Sandefur, Edwin Ashley; Lawrence.
Sanders, Aileen Isabel; Halls Summit.
Sanders, Mildred Marie; Winfield.
Sands, Freda Hariette; Robinson.
Sands, Lillie Helen; Robinson.
Sartin, Elizabeth Jane; Kansas City.
Schaffer, Lorena Marguerite; Kansas City.
Schoonover, John Ansel; Lyons.
Schultz, Ernestine; Lawrence.
Seery, Irene Cordelia; Topeka.
Seifert, Elmer William; Murdock.
Senor, Samuel Earl; *St. Joseph, Mo.*
Shore, Edward Harrison; Kansas City.
Shores, Harold Porter; Burr Oak.
Short, Lowell Davis; Salina.
Shultz, Himie Joseph; *Kansas City, Mo.*
Simmons, Hazel May; Kansas City.
Skillman, Maude; Burlington.
Smith, Adda Simmons; Hutchinson.
Smith, Frederick Agenstein; *Lamoni, Iowa.*
Smith, Henry Dee; Lawrence.
Smith, Margaret S.; Newton.
Smith, Nellie; Horton.
Soper, Herschel Vern; Hutchinson.
Spalding, Wilber Braden; Wabaunsee.
Sparks, Cecile Marie; Greensburg.
Stanley, Dorothy Jewell; Lawrence.
Steele, Marjorie Schuyler; *Kansas City, Mo.*
Stevens, Dora May; Caldwell.
Stevenson, William Taylor; Leavenworth.
Stillwell, Robert Jerry; Kansas City.
Stockebrand, Ira DeSankey; Yates Center.
Stout, Forrest Dwight; Medicine Lodge.
Stubbs, Nancy Catherine; *Fort Worth, Tex.*
Stugard, Erwin; Lawrence.
Suderman, Ann Elizabeth; Newton.
Sullivan, Mary Mercedes; Fort Scott.
Summet, Reba Ruth; Paola.
Tate, Winston Rousseau; *Kansas City, Mo.*
Taylor, Elizabeth; *Kansas City, Mo.*
Tenenbaum, Rebecca; Kansas City.
Testerman, Minnie; Lawrence.
Thompson, Louise Alcott; Kansas City.
Thomson, Evelyn Lamont; *Plattesville, Wis.*
Thurman, Harriett; Wichita.
Thurman, Josephine; *Joplin, Mo.*
Thurston, Helen Margaret; Kansas City.
Towner, Herberta Frances; *Kansas City, Mo.*
Tudor, Ida Patton; Holton.
Turner Roy Mathew; Effingham.
Undenstock, Helen Oneita; Osage City.
Underwood, Mary; Lawrence.
Utermann, Sophia Magdalene; Lawrence.
Waggener, Mark Spurr; Atchison.
Wanamaker, Elnora Frances, Blue Rapids.
Weaver, James B.; Belleville.
Webster, Edith; Larned.
Webster, Eugene Butler; Kansas City.
Weed, Mahlon Stuart; Lawrence.
Weidlein, Glee Toews; Longton.
West, Marion; Lawrence.
West, Thurlow; Caney.
Westpheling, Mary Elizabeth; *Los Angeles, Cal.*
White, Dean Marlett; Topeka.
White, Valla Helen; Kansas City.
White, Helene Josephine; Lawrence.
Whiting, Leo Robert; Wichita.
Wiand, Mildred; Wichita.
Wilhoit, John William; Saint George.
Williams, Lydia Jane; Kingman.
Williams, Robert Roy; *Houston, Mo.*
Williamson, Elizabeth; Edwardsville.
Wilson, Gertrude Marie; Lawrence.
Wine, Mildred; *Kansas City, Mo.*
Winkler, Hazel; Chanute.
Winkler, John Joseph; Maplehill.
Winship, Olive May; Syracuse.
Wood, Isabel Moore; Lawrence.
Wright, William Eliza; Esbon.
Wyatt, Wiley Jefferson; Lawrence.
Yap, Benjamin Tsun Hyen; *Honolulu, Hawaii.*
Young, Maurice Reginald; Dodge City.
Young, Raymond Jay; Wichita.
Zirkle, Daisy Valerie; Stafford.

SOPHOMORES.

Abbott, Joseph Omer; *Manitou, Colo.*
Abrams, Beatrice; Lawrence.
Achning, Walter John; Lawrence.
Adams, Randolph B.; Topeka.
Adams, Roberta Frances; Fort Scott.
Alexander, Francis Willard; Kansas City.
Algie, William Hackney; Clay Center.
Allvine, Fred; Kansas City.
Anderson, Bert; Ottawa.
Andrew, Lale Clark; *Kansas City, Mo.*
Angle, Fred Ernest; Kansas City.
Anthony, Georgia; Lawrence.
Armstrong, Lorrimer Birtie; *Shawnee, Okla.*
Arnold, Iras; Emporia.
Arthur, Clifford Kerr; Junction City.
Athey, Esther Peggy; Turon.
Back, Carrie Anna; Ellinwood.
Bacot, Eunice; *Kansas City, Mo.*
Baird, Dorothy Mildred; Agenda.
Baker, Aubrais Jerome; Leavenworth.
Barley, John Jerome; Washington.
Barnes, Harold Rueben; Hiawatha.
Barnett, Frank Howard; *Stuart, Iowa.*
Barnett, Walter J.; *Des Moines, Iowa.*
Barrett, William Wilson; *De Ridder, La.*
Basye, Harry Colwman; Lawrence.
Bates, James Charles; Basehor.
Baumgartner, Leona; Lawrence.
Beatty, Thomas Allan; Ellsworth.
Beck, Alvah Virgil; Osawatomie.
Bedell, Charles Otis; Lebo.
Bedell, Gaylord Henry; *Kansas City, Mo..*
Beery, Dolson Logan; Lawrence.
Benfer, Merrill Meredith; Leona.
Bennett, James Lawton; Iola.
Bennett, Lois Elza; *Kansas City, Mo.*
Bierer, Alfaretta Louise; Hiawatha.
Black, Emil Eugene; Lawrence.
Blair, Hugh Macdonald; Lawrence.
Blake, John Emerson; Chanute.
Blakey, Margaret Susanna; Pleasanton.
Blew, Clarence Lloyd; Kansas City.
Bloomer, Joseph Benedict; Claflin.
Blymn, Ralph George; Fredonia.
Boggs, Don Guy; Wichita.
Bonney, Joseph Byron; *Kansas City, Mo.*
Boone, Fred Sawtelle; Manhattan.
Boone, John Henry Hall; Hutchinson.
Bosworth, Charles Granville; Wellsville.
Bosworth, Florence Evelyn; Wellsville.
Botkin, William Martin; Kiowa.
Bouska, Luther Nathaniel; Narka.
Bowman, Earl McKinley; Lawrence.
Boyd, Fray McCabe; Denison.
Boyer, Ray Leslie; Lawrence.
Boyer, Samuel Annon; Osborne.
Boyle, Lloyd William; Burrton.
Bracken, Frank Cuppage; Glasco.
Bracken, George Lee; *Kingfisher, Okla.*
Bradbury, Elizabeth Kennard; Paola.
Brandle, Dorothy Minnie; Chanute.
Brandom, Lena; *Gallatin, Mo.*
Brigham, Ralph Theodore; *Kansas City, Mo.*
Bronson, Elsie Marie; Mound City.
Bross, Harvey Edward; Abilene.
Brown, Adelbert Charlton; Halstead.
Brown, Grace Lula; Oskaloosa.
Brown, Guy Bowen; Kansas City.
Brown, Lynn H.; Lawrence.
Brown, Margaret Pauline; Independence.
Brown, Merritt; Lawrence.
Brown, Neva Anna; Minneapolis.
Brown, Williamson James; *Kansas City, Mo.*
Bruer, John Marion; McPherson.
Buckle, Ethel Fae; Stafford.
Buckles, John Abraham; Soldier.
Bunn, Helen Louise; Lawrence.
Burke, Paulen Elmore; Fredonia.
Burnside, Clyde Ostin; Iola.
Calhoun, Donald Barbour; Fort Scott.
Callahan, John Dewey; Burr Oak.
Campbell, Catherine; Lakin.
Campbell, Emerson Lowell; Lawrence.
Campbell, Merrill Raymond; Lawrence.
Carey, Nellie Alemeda; Hutchinson.
Carney, Alice Burton; Concordia.
Carpenter, Ora McKinley; Westphalia.
Carrico, Felix Martin; Beloit.
Case, Rufus McKinley; Lyons.
Cass, Philip Hardin; Iola.
Casto, James Frederick; Wellsville.
Caulk, Raymond Frederic; Bonner Springs.
Chalkley, Marcella Howland; Lawrence.
Chapin, Dean William; Belleville.
Chappuis, Twilla Louise; Belleville.
Chase, Mary Eleanor; Lawrence.
Childs, Kenneth Duane; Herington.
Chiles, Ray Wilson; Jefferson.
Clark, Adeline Beatrice; Garden City.
Clark, Carroll DeWitt; Minneapolis.
Clark, Eugene Chapin; Minneapolis.
Clements, Homer McKinley; Olathe.
Clingman, Talbot Foster; Lawrence.
Clough, Arthur Merrett; Lawrence.
Clouse, Ruth Velma; Cunningham.
Clouser, Mary Frances; *Kansas City, Mo.*
Clower, Fay Walter; Chanute.
Cobb, David Glenn; Fort Scott.
Collins, Herbert Dale; Pittsburg.
Collins, Marion Francis; Osawatomie.
Constant, Corinne; Lawrence.
Constant, Kenneth Hoskins; Lawrence.
Cook, Clara Bernice; Lawrence.
Cooper, Frances Etherington; *Las Animas, Colo.*
Correll, Ralph Follett; Chanute.
Cox, John Deverix, jr.; Parsons.
Cox, Orlis Claude; Elk City.
Crandall, Mary Isabell; Vernon.
Crawford, Lucy Christina; Atchison.
Cretcher, Kathryn Gladys; Scott City.
Cronin, Anne Bertha; Halls Summit.
Cross, Austa Louise; Quenemo.
Cummings, Milton Curtis; Effingham.
Cummings, Myrtle Adella; Berwyn.
Cutter, Charlotte; Lawrence.
Curran, Kevin Edward; *Kansas City, Mo.*
Daniels, Georgiana Jane; Paola.
Darby, Phil Nathan; Garden City.
Davidson, Nelle M.; Herington.
Davidson, Oscar Wilford; Solomon.
Davis, Ruth Ellen; *Nowata, Okla.*
Davison, Orion; Tribune.
Day, Leland; Greensburg.
Dayhoff, Helen Mossman; Lawrence.
Degman, Constance Marie; Hutchinson.
Derby, Grace Rosalie; Lawrence.
Detrick, Millye; Caldwell.
Dewey, Thomas E.; Topeka.
Dietrich, Karl David; Ottawa.
Dillenbeck, Floyd Earl; El Dorado.
Dilley, Charles A.; Alta Vista.
Diltz, Ronald Sartin; Kansas City.
Doane, Chester Lary; *Meno, Okla.*
Donaldson, Dorothy Mary; *Kansas City, Mo.*
Donmyer, Bernice May; Salina.
Dryden, Donovan Mitchell; Parsons.
Dugan, Rollo Carlton, jr.; Ottawa.
Dunkel, Elizabeth Goodman; Lawrence.
Dunkelberg, Kent Walter; *Marsden, Okla.*
Dunn, Paul Burnett; *Kansas City, Mo.*
Dworkovitz, Joseph Harold; *Kansas City, Mo.*
Dye, James Edwin; Parsons.
Esterling, Charles James; McPherson.

SOPHOMORES—*Continued.*

Eckel, Alice Catherine; Douglass.
Eckelberry, Orren Sumner; La Harpe.
Eckert, Cornelia Jessie; *Kansas City, Mo.*
Eddington, Mary Belle; Topeka.
Egbert, Ward Bertrand; Cimarron.
ElDriny, Mohamed Hamed; Kansas City.
Elliott, Ural Berry; Garnett.
Emmert, Madeline Lee; *Kansas City, Mo.*
Endacott, John Earl; Lawrence.
Engle, Frances Loine; Abilene.
Engle, William James; Lawrence.
Engle, Edward Theron; Wellington.
Ensminger, Dorothy Moore; *Kansas City, Mo.*
Ernst, Edith Etta; Lawrence.
Erskine, Vincil Edwin; Winfield.
Esterly, George Roberts; Lawrence.
Eubank, William Crillon; Cullison.
Evans, Mary Frances; Hartford.
Ewing, Mary Elizabeth; Olathe.
Faris, Harry; Hutchinson.
Fearing, Ellen Pearles; Burr Oak.
Felton, Albert Glenn; Arkansas City.
Ferguson, Clare; Wellington.
Ferguson, Lois Virginia; Topeka.
Fetherston, Maud; Coffeyville.
Finch, Harold Ernest; Russell.
Fink, Janet Evangeline; Topeka.
Flanders, Roland O.; Lawrence.
Fleck, Arthur L.; Kansas City.
Flower, Rupert Emil; Wellington.
Flynn, Pauline; Humboldt.
Ford, Margaret; Lawrence.
Ford, William Virgil; Lawrence.
Fox, Jared Copeland; Atchison.
Fraker, Ray Dayton; Garnett.
Freeland, John Elder; Marion.
Freienmuth, Anna Marie; Tonganoxie.
Fridell, Myrtle Louise; Robinson.
Fridell, Ralph George; Robinson.
Gage, George Maurice; Minneapolis.
Gagliardo, Domenico Augusto; Cherokee.
Gard, Catherine Louise; Iola.
Gard, Lucille Margaret; Iola.
Gates, Clara Rose; Seward.
Gaunt, Marjorie; Alton.
Gentry, Lucile Mary; Lawrence.
Gernon, John Lawrence; Hiawatha.
Gilbert, Sarah Lucile; Lawrence.
Gillett, David Clayton; Burr Oak.
Gillett, Henrietta Maude; Burr Oak.
Gleed, Grace; Topeka.
Godlove, Elsie Maud; Lawrence
Godlove, Perry Calvin; Lawrence
Goodman, Dorothy Ardelle; Marysville.
Goodman, Johnathan Norwood; Pomona.
Goodman, Le Roy; *Kansas City, Mo.*
Goodner, Kenneth Howard; Baxter Springs.
Goto, Shinzaburo J.; *Japan* (deceased).
Graeber, Bernice; Lawrence.
Green, Mary Elizabeth; Kiowa.
Greenleaf, Katherine; Greensburg.
Gregory, McKinley Dean; Alton.
Griesa, James Murray; Lawrence.
Grimes, Floyd Joseph; Louisburg.
Grimes, Martin Ball; Hutchinson.
Grove, James Morris; Larned.
Grubb, Clarence Frederick; Gridley.
Grubb, Orval Grand; *Lamont, Okla.*
Gufler, Wilhelmina; Emporia.
Hale, Cecil S.; Lawrence.
Hale, Dana Jay; Delphos.
Hale, Travis Burney; Lawrence.
Hall, Mildred Ethyl; Pleasanton.
Hamilton, Gomer Cortez; Lawrence.
Hamilton, Mary Helen; *Linton, Ind.*
Hamlin, Madge; Kansas City.
Hampton, Lois Andres; Colby.
Harding, Orpha Belle; Lawrence.
Hardman, Marian; Downs.
Hare, Robert Stuart; Enterprise.
Harkins, Veronica Leontine; Paola.
Harms, Herman Roland; Haven.
Harris, Margaret Estelle; Burr Oak.
Harris, Ray Edwin; Hill City.
Hart, Georgia Myrl; Macksville.
Harter, Verne Alfred; Douglass.
Harwell, Harry Irving; Wichita.
Heath, Charles Flaunery; Tescott.
Heaton, Phœbe Florence; *Flucom, Mo.*
Heim, Norman; Ellinwood.
Hem, Norman; Kansas City.
Hendry, Elisha Lloyd; Newton.
Henry, Dorothy; Tonganoxie.
Henry, Harold James; Belleville.
Henry, Laura Vernon; Lecompton.
Henry, Nellie Gladys; Bonner Springs.
Henry, Princess Juanita; Lecompton.
Herrick, Don Henry; Lawrence.
Herzog, Walter Max; Fort Riley.
Hesse, Charles Gerald; Lawrence.
Heusner, William Wilder; Salina.
Hewett, Amos Woody; Hiattville.
Hibbs, Ben; Pretty Prairie.
Hickok, Garold Lichty; *Kansas City, Mo.*
Hicks, Leta Nell; Norton.
Higgins, Severt Edward; Lawrence.
Hill, Frank Goddard; Great Bend.
Hinch, Gertrude Kathryn; Kansas City.
Hipple, Marieta; Hutchinson.
Hirsch, Johanna Louise; Ellinwood.
Hitchcock, Everett Edward; Augusta.
Hogin, James Hunphrey; Belleville.
Hogin, John Christfield; Belleville.
Holiday, Celia Pauline; Lawrence.
Holland, Pearl Lorine; *Kansas City, Mo.*
Holloway, Blanche E., Lawrence.
Hoover, Vincent Kelvin; Russell.
Horning, Hubert; Moline.
Howard, Fred Donald; Lawrence.
Hudson, Edward F.; Fredonia.
Hudspeth, Henrietta Ott; Horace.
Hughey, Mildred May; Lawrence.
Humbarger, Catherine Virginia; Salina.
Huoni, John Simeon; *Tyler, Tex.*
Ingham, Oba Glenn; Esbon.
Ireland, Eva May; Florence.
Isaacs, Lloyd L.; *Prairie View, Tex.*
Jackman, Katherine; Lawrence.
Jackson, Edward Valentine; Atchison.
Jackson, Vera Gertrude; Kansas City.
Jacobus, Ida Johnston; Winfield.
Jefferson, Leo; Neodesha.
Jeffries, Mary Agnes; Kansas City.
Jenkinson, Mary Edington; Troy.
Jennings, Ernest W., Macksville.
Jennings, Frank Sherman; Winfield.
Jewell, Edna Fern; Lawrence.
John Leslie; *Tulsa, Okla.*
Johns, Perry Bryan; Concordia.
Johns, Vernon O.; *Deer Creek, Okla.*
Johnson, Joseph Harold; El Dorado.
Johnson, Lillie Marie; Salina.
Johnson, Lionel Willard; *Clovis, N. Mex.*
Jones, Selden Martin; *Kansas City, Mo.*
Kendall, Marguerite Blanche; Lawrence.
Kendall; Paul S.; Great Bend.
Kenney, Margaret; *Kansas City, Mo.*
Keys, Robert Cathcart; Winchester.
Kiefer, Grace Evelyn; Lawrence.
Kimmel, Murl; Robinson.
Kirchner, Olive Viola; Clay Center.
Kirkwood, Willa E.; Wichita.
Knapp, Leslie Eugene; Arkansas City.
Knoblauch, Romayne John; Wichita.
Kohler, Bion; *Kansas City, Mo.*
Krisan, Velma May; Haddam.
Kunze, Alice Ruth; Winkler.
Kuttler, Virginia Bel; Lawrence.

SOPHOMORES—*Continued.*

Lambert, William Pettibone; Leavenworth.
Lannen, Effie; *Cheyenne, Wyo.*
Larkin, Archie Merril; Phillipsburg.
Larkin, Margaret; *East Las Vegas, N. Mex.*
Larson, Minnell O., Sharon Springs.
Lawellin, Marion Maxwell; Garnett.
Lee, Florence Gertrude; Lecompton.
Lee, Iuida Sophia; Lawrence.
Lee, Rebecca Josephine; Bonner Springs.
Leffler, George Leland; Lyndon.
Lehman, Roy Philip; Halstead.
Leitch, Cecil George; Parkerville.
Lennen, Ruth Josephine; Soldier.
Levens, Margaret Jane; *Nevada, Mo.*
Lewis, Freda-Alberta; Kansas City.
Liggett, John Riley; Lawrence.
Little, Donald; Kansas City.
Lockett; Helen Ettienne; *Albany, Ga.*
Logan, Fostoria Dewey; Topeka.
Loren, Mildred Josephine; Atchison.
Luke, John Henry; Junction City.
Lynch, Margaret; Salina.
MacDaniels, Reba Gladys; Kansas City.
Macdonald, Marion Lucille; *Kan. City, Mo.*
Mackie, David Charles; Lawrence.
Maddox, Albert; Rosedale.
Mamigan, Oscar Vartan; Highland.
Manter, Ruby Helen; Lawrence.
Marshall, Jack T.; Eureka.
Martin, Frank Lehman; Williamsburg.
Martin, Velma; Bucyrus.
Martin, Wallace Ingersoll; Kansas City.
Mason, Willful Ganelle; Kansas City.
Mather, Roy S.; Ottawa.
Maxey, Benjamin Thomas; White Water.
Maxfield, George Glen; Syracuse.
Meidinger, Bernard Roy; Wathena.
Meinke, Herbert Clyde; Linwood.
Mellott, Lennert Boyd; Muncie.
Merritt, Grace; Haven.
Mickel, Chester G.; Soldier.
Michel, Clara Elizabeth; Salina.
Middlehauff, Jack Kenneth; Hays.
Miller, Carroll Cyrus; *Kellerton, Iowa.*
Miller, John Wallace; Centerville.
Miller, Kenneth Carter; Wathena.
Miller, Margaret Lenore; Garden City.
Miner, Glenn Ernest; Sabetha.
Mitchell, Henrietta Gladys; Galena.
Mitchell, Ralph E.; Erie.
Moherman, Laura F. C. B.; Wellsville.
Montgomery, Marion; Junction City.
Moore, Mary Nestor; Wichita.
Moore, Victor Rhodes; Parsons.
Moore, Winifred Ethelyn; Galena.
Morris, Benjamin Smith; Hill City.
Morton, Vesta Chase; Wichita.
Mosse, Justine St. Leger; Leavenworth.
Moyer, Earl Extra; Iola.
Myer, Laurine; Pleasanton.
Myers, Catherine Mary; *Kansas City, Mo.*
Myers, Leland Warren; Winchester.
McAdams, Vauneta Evelyn; *St. Joseph, Mo.*
McCall, Bannon Grant; Hiawatha.
McDonald, Andrew; Lawrence.
McElroy, Etha Adeline; *Kansas City, Mo.*
McFadden, Maude Agnes; El Dorado.
McGrew, John Merritt; Holton.
McGrew, Nathan White; Holton.
McHale; Thos. Cecil; Kansas City.
McIntyre, Francis Gleason; Coldwater.
McKee, Dick Beguin; Chanute.
McKenzie, Joseph Leonidas; Arkansas City.
McKibbin, Mabelle Catharine; Lawrence.
McLaughlin, Raoul Ihri; Toronto.
McLean, Marie Margaret; Salina.
Neely, Helen Augusta; Lawrence.
Nelson, Morton Edward; Lawrence.
Nevitt, Rollin Roy; Mildred.
Newton, Hiram Daniel; Ottawa.
Nichol, Albert Ross; La Crosse.
Nohe, Lucile Lois; Lawrence.
Nolasco, Saturnino Morales; Lawrence.
Nonken, Edith Berenice; Burns.
Norris, Dwight Willard; Burlington.
Oates, Anthony; Minneapolis.
O'Brien, Harry Normile; Leavenworth.
O'Donnell, Harold Frederick; Ellsworth.
Old, John Ballard; Parsons.
O'Leary, Paul Martin; Lawrence.
Olsen, Karl Benjamin; Baker.
Olson, Andrew Allen; Alexander.
Olson, Harry Emmett; Kansas City.
O'Meara, Mildred Elizabeth; Lawrence.
Ott, Alberta Elizabeth; Olathe.
Ott, Gladys Mae; Lawrence.
Paepke, Paul; *Savannah, Mo.*
Parker, Melba Randolph; Wichita.
Parks, Percy Homer; Cedar Vale.
Parrott, Ivo William; Osborne.
Patterson, Margaret; Fredonia.
Patterson, Paul Bryan; Lawrence.
Paul, Elmer William; *Harvard, Ill.*
Paul, Marion Marshall; Blue Rapids.
Peacock, Della Bernice; Blue Rapids.
Pearson, Charlotte Marie; Simpson.
Penney, Gerald Harvey; Hays.
Petherbridge, Opal Marie; Basehor.
Pettit, Geraldine Prudence; Neodesha.
Phillips, Dan Eugene; Hutchinson.
Phillips, Jeanette LaNieve; Springfield.
Phillips, Myra Louise; Lawrence.
Pile, Rilla; Lawrence.
Pommerenke, Wesley Theodore; Woodbine.
Porter, Adna Mildred; Strawn.
Potter, Paul Burdette; Herington.
Priesmeyer, Fredericka Jane; *Moberly, Mo.*
Pringle, Annabel; Alma.
Proctor; Virgil Dale; Norton.
Puffer, Charles Oliver; Burlington.
Pumphrey, Lloyd Worth; Pittsburg.
Quevedo, Eugenio Ver; *Dingrass, Ilocos Norte, P. I.*
Quinlan, Beulah Alma; Linwood.
Rader, Ruth; Howard.
Raich, John Alfred; Hutchinson.
Ramey, Roy Lee; Lawrence.
Ratliff, Mable Faye; Burr Oak.
Raub, Lorna Marie; Lawrence.
Reb, James Henry; Blue Rapids.
Reed, Ada Bernice; Sabetha.
Reedy, Howard Lester; Lawrence.
Rees, Mona Ellenora; Greeley.
Reinsch, Elta May; *Martin City, Mo.*
Renz, Josephine; Leavenworth.
Reynolds, Adrian Wall; *Eagle, Colo.*
Ricken, Sam Foster; Emporia.
Rickford, Wm. Bryan; Leoti.
Rigdon, Jonathan Milton; Lawrence.
Roach, William Laray; Mulberry.
Roark, Frenk Leslie; Manhattan.
Roberts, Lloyd Sherwood; Winfield.
Robinson, LeRoy Emerson; Cassoday.
Robinson, Lois Leilla; Harper.
Rogers, Geraldine Ruth; Olathe.
Rogers, Sumner Saule; Lawrence.
Root, Ellsworth Eugene; Council Grove.
Rose, Docia Virginia; *Carthage, Mo.*
Ross, Hildred Manerva; Dover.
Ross, Warren L.; St. John.
Royer, George Daniel; Gove.
Rundus, Philip Peter; Topeka.
Rupps, Adolph Fred; Halstead.
Rutherford, James Gill; Wellington.
Ryan, Max; Leavenworth.
Salvesen, Floyd Wilson; Lawrence.
Saunders, Ruth; *Kansas City, Mo.*
Saunders, Vera Juanita; Pleasanton.

SOPHOMORES—*Concluded.*

Schultz, Willis Glick; Lawrence.
Schwartz, Florence Hoffman; Wichita.
Schwinn, Virginia Chesney; Wellington.
Scott, Lingard; Ottawa.
Scott, Jay Dewey; Hutchinson.
Seidel, Erna Marie; Lawrence.
Shanahan, Charles Edward; Stilwell.
Shaner, Virginia; *Tulsa, Okla.*
Shaw, Irma Catherine; Holton.
Sheets, Harry Wilton; Lawrence.
Sheffer, Orville Adrie; Sharon Springs.
Shelden, Gene; El Dorado.
Shepherd, Mary Elizabeth; Waverly.
Shifflet, Clyde Treffz; Atchison.
Shumard, Mark McCormick; Cherryvale.
Simon, Edith; Kansas City.
Sisson, Charles Alexander; Lawrence.
Slane, Nimon Allen; Parsons.
Smiley, Mrs. Ruth Hofflander; Lawrence.
Smith, Emily Pauline; Sharon.
Smith, Hazel Marguerite; Lawrence.
Smith, Lester Larold; Lawrence.
Smith, Marjorie Marley; Iola.
Smith, Walter R.; Lawrence.
Smith, Wendell Ellis; Lawrence.
Smurthwaite, Beatrice Victoria; *Kansas City, Mo.*
Snyder, Cora Pearl; Robinson.
Snyder, Ralph Waldo; Spring Hill.
Soldain, Rose Marie; *Ponca City, Okla.*
Soller, Lester Edwin; Washington.
Sparks, Mary Elizabeth; Greensburg.
Stephenson, Lester O.; Little River.
Stephenson, Paul Noble; Augusta.
Stevenson, George R.; Lawrence.
Stevenson, Robt. M.; Salina.
Steward, J. Everett; Sylvan Grove.
Stocking, Collis Allen; *Clarendon, Tex.*
Stoddard, Thelma LeEtta; Lawrence.
Storey, Harvey; Ellsworth.
Stout, Floyd Hamilton; Hill City.
Stover, Harry L.; Lincoln.
Supple, George Howard; Michigan Valley,
Swinson, Carl; Isabel.
Symes, Don E.; Harveyville.
Symns, Arthur Thomas; Hutchinson.
Taylor, Carol; Geneseo.
Testerman, Le Nora Pearl; Lawrence.
Tilley, Ida May; Irving.
Tolson, George; Garnett.
Tracy, Marguerite Elizabeth; Wichita.
Treff, Lurana Gertrude; Basehor.
Turner, Joseph Spoor; Kansas City.
Vaughn, Dorothy Lee; Neodesha.
Vernon, Cornelia Gladys; Kansas City.
Vincent, Stillman; Nortonville.
Visperas, Silveris Nocon; *Philippine Islands.*
Wakenhut, Juliett Willhelmina; Salina.
Walbridge, Anne; Russell.
Wall, Dorothy Charlotte; Lawrence.
Wallace, Mary Winifred; Augusta.
Walters, John Harold; Kansas City.
Ware, Edwina Etta; Lawrence.
Warren, Frances Marian; *Muskogee, Okla.*
Washburn, Cornelia; Kansas City.
Watson, Benjamin Bernard; Iola.
Welch, Lena; Fort Scott.
Wells, Opal Elley; Sabetha.
Welty, Newell Gwinn; *Bartlesville, Okla.*
Wendelken, Dorothy; *Elkton, S. Dak.*
Wetmore, Nellie Meta; Fredonia.
Wheeler, James Albert; Marion.
White, Lester Allen; Effingham.
White, Oba Bernethel, *St. Joseph, Mo.*
Wiberg, Lawrence C. E.; Clay Center.
Wiggins, Hazel Dell; Lawrence.
Wilbur, Margaret Florence; Wichita.
Wilcox, Arthur LaVern; Abilene.
Wilcox, Zola May; Lucas.
Wilhite, Margaret Lucile; Rosedale.
Willard, Veronica; *Flandreau, S. Dak.*
Wilson, Edgar Mark; Caney.
Wilson, James Garfield; Ashton.
Wing, Martha Kathryn Robinson; *Independence, Mo.*
Wingert, Phyllis Arthee; Paola.
Withers, Orval Raymond; Pratt.
Wood, Laurance Edward; Clay Center.
Wood, Morris Dinsmore; Lawrence.
Wulf, John; *Vancouver, Wash.*
Wulf, Walter Henry; Humboldt.
Wunsch, Paul Robert; Argonia.
Wyandt, Dudley Rhodes; Abilene.
Wynne, Mason Earl; Oronoque.
Yeats, Lorrains Alberta; *Boulder, Colo.*
Young, Charles Lindley; Cawker City.
Young, Ray Douglass; Almena.
Young, Ray Russell; Lawrence.
Zimmerman, Daniel Sinclair; Troy.
Zoellner, Fred Winslow; Tonganoxie.

FRESHMEN.

Ackenhausen, Barnett Olwell; Kansas City.
Adair, Laura Ellen; Lawrence.
Adams, Howard W.; Lebanon.
Ade, Carl Fred; *Kansas City, Mo.*
Agee, Esther Fay; Troy.
Ainsworth, Katherine; Wichita.
Albright, Winfred Elmor; Brewster.
Aldrich, James Folsom; Independence.
Aldrich, Percy Merrick; Tescott.
Alexander, Horace John; Mayfield.
Allan, Charles Garvin; Tonganoxie.
Allen, Dorothe; Kansas City.
Allen, Harold Edward; Osawatomie.
Allen, Nellie Frances; Winfield.
Allen, Ulmar Hartom; Seneca.
Allison, Paul Edmund; Culver.
Allvine, Earl Franklin; Kansas City.
Ames, Arthur Grover; Claflin.
Amos, Mary Louise; Humboldt.
Anderson, Dora Louise; Vesper.
Anderson, Hazel Amanda; Lawrence.
Anderson, Inez Christine; Lawrence.
Anthony, Ruth Lemert; Lawrence.
Archer, Irving Mott; *Kansas City, Mo.*
Armel, Jesse Dwight; Holton.
Armstrong, Alpheus Cornelius; Ottawa.
Armstrong, Homer Jerome; Atchison.
Armstrong, Margaret Juliet; Lawrence.
Armstrong, Welton Thomas; Emporia.
Arnold, Eva Jane; Edna.
Ashley, Ruth; Pleasanton.
Ashlock, Donald Morton; Olathe.
Atkinson, Samuel Williams, jr.; Lawrence.
Attick, Marion Louise; *Kansas City, Mo.*
Attwater, Julia Margaret; Cedar Vale.
Ayer, Estella Lucile; Fall.
Baird, Leslie Erwin, jr.; *Kansas City, Mo.*
Baker, Fred Stanley; Gove.
Baker, Gerald William; Wichita.
Baldridge, Beatrice; *Chicago, Ill.*
Ballew, Floyd Lester; Burlington.
Barber, Chas. Halsy; Concordia.
Barbieri, William Michael; Bonner Springs.
Barbour, Constance Helen; Wellington.
Barker, W. Harold; Paola.
Barnes, Ralph Casner; Bellaire.
Barnhart, Alfonso Augusus; Scott City.
Barrons, Mary Rose; *Kansas City, Mo.*

FRESHMEN—*Continued.*

Bateman, Harold Louis; Herington.
Beam, Ida May; Norton.
Beatie, Maurice Paul; Anson.
Bechtel, Ruby May; Liberty.
Beck, Marjorie Anna; Stark.
Beery, Roland Smith; Edwardsville.
Bell, Kathryn; Sharon Springs.
Bendit, Louis Carol; *Kansas City, Mo.*
Benfer, Irene Isabelle; Leona.
Bennett, Charles Alvin; Eskridge.
Bennett, Durward Adrian; Miriam.
Bennett, Mina; *Alamogordo, N. Mex.*
Bennett, Yula Della; Hoisington.
Benson, Claude August; Bonner Springs.
Berg, Elizabeth Leora; Syracuse.
Berger, Hobert August; Lawrence.
Berry, David Lyle; *Independence, Mo.*
Betsher, Erma Mary; Eureka.
Biewener, Fred Henry; Newton.
Bishop, Howard Leckron; Lawrence.
Black, Chas. Terence; Lawrence.
Blacker, Homer Wilson; Gardner.
Blackmar, Dorothy Leoti; Lawrence.
Blake, Harvey Dalton; McPherson.
Blake, James Thomas; Kansas City.
Blaker, Harry Cooper; Pleasanton.
Blum, Lawrence S.; Kansas City.
Boggs, John Dean; Wichita.
Bolinger, Margaret A.; Great Bend.
Bond, Barclay M.; Haviland.
Boresow, Abraham; *Jackson, Mo.*
Borgoldte, Irma Alice; *Kansas City, Mo.*
Bosier, Helen Dorothy; *Kansas City, Mo.*
Boterf, Chas. Horace; Toronto.
Bowersock, Justin Donald; Lawrence.
Bowler, Theodore Roosevelt; Kansas City.
Bowman, Lillian Goodwin; Coffeyville.
Boyle, Russell Thomas; Leavenworth.
Boyle, William M.; Leavenworth.
Bracken, Thomas Harding; Glasco.
Bradbury, Vivian Mary; Culver.
Bradley, Jeptha; Blackburn.
Braucher, Alida Josephine; Humboldt.
Brehm, Joseph Richard; Hutchinson.
Brennan, Leo Joseph; Topeka.
Bridges, Carol F.; Kincaid.
Brinkmann, John Fredman Herman; Meade.
Brown, Esther; Lawrence.
Brown, Evelyn Elizabeth; Wichita.
Brown, Howard Chester; Lawrence.
Brown, Leona Marie; Lawrence.
Brown, Linna May; Garnett.
Brown, Marshall William; Wichita.
Brown, Neil Dowell; Hill City.
Brown, Victor F.; Lawrence.
Brown, William Byron; *Kansas City, Mo.*
Brown, Zara Lyle; Holton.
Browne, Hugh Ainsworth; Kansas City.
Brust, Carl Henry; Roxbury.
Bryant, Dale M.; Greeley.
Bryde, Philip M.; Lawrence.
Buck, Alfred H.; Topeka.
Buck, Mary Helen; *Kansas City, Mo.*
Buckingham, Max Marcellus; Wichita.
Buckland, Theodore Emil; Marion.
Buenning, Arvel Edward; Minneapolis.
Bullene, George Innes; Lawrence.
Bullock, Arthur Merlin; *Kansas City, Mo.*
Burdett, Charles Burton; Olathe.
Burkhart, Charles Atherton; *St. Joseph, Mo.*
Burke, Arnold John; Danville.
Burkey, Jordan Warren; Arkansas City.
Burnett, Joseph; Dighton.
Burnette, Helen Aletha; Kansas City.
Bussell; Larkin Lewis; Osawatomie.
Butler, Louie Walter; Winona.
Butler, Theodore Roosevelt; Kansas City.
Cady, Ruth Caroline; Lawrence.
Cain, Anona Elizabeth; Perry.
Campbell, Aubry Oberlin; Lansing.
Campbell, Gladys Kercher; Lawrence.
Campbell, Mabel Elsie; Lawrence.
Campbell, Mosceline Zelma; Hutchinson.
Carbaugh, Eugene, jr.; *Kansas City, Mo.*
Carcuff, Aura Melvin; Miltonvale.
Carlin, Hugh H.; Salina.
Carman, Genevieve; Herington.
Carman, Ruth Rosalia; *Las Animas, Colo.*
Carpenter, Bertrand William; Mont Ida.
Carter, Harland Farrar; Lawrence.
Carter, Mamie Beatrice; Rosedale.
Carter, Ruth; Lawrence.
Carter, Thomas Jerrell; Lawrence.
Caton, Julia Louise; Winfield.
Chadsey, Frederick Newton; Cherokee.
Chaffee, Harry Almon; Leonardville.
Chamberlain, Clifford Mulford; *Kansas City, Mo.*
Chandler, Collis Paul; *Vinita, Okla.*
Chandler, Iza Iona; Lawrence.
Chapman, Aylsworth DeWitt; Wichita.
Cheatum, Elmer Philip; Langdon.
Chester, Ruth Marie; Effingham.
Chew, Anna Mae; Lawrence.
Chiles, William Ray; *Buckner, Mo.*
Clark, Alice Amanda; Lawrence.
Clark, Dwight DeLong; Great Bend.
Clark, Ernest Roy; Chanute.
Clark, Harold Gilmore; *McAlister, Okla.*
Clark, Mildred May; Lawrence.
Clark, Ruth Irene; Lawrence.
Clarke, Eddie Anderson Merril; Kansas City.
Clawson, Johann Strauss; Hartford.
Cline, Mary Billy; Erie.
Cline, Mary Madeline; Humboldt.
Clinton, John Ernest; Beverly.
Cobb, Owen W.; Culver.
Coberly, Owen Herman; Garnett.
Cohen, Joseph; *Kansas City, Mo.*
Cole, Bertha Zetha; Oskaloosa.
Collins, Helen Loreine; *Sapulpa, Okla.*
Collins, James Lloyd; Oxford.
Conboy, Richard Philip; Lawrence.
Congdon, Corinne C.; Kansas City.
Conklin, Kenneth Eugene; Abilene.
Conn, Emily; *Kansas City, Mo.*
Connelly, James; Colby.
Conroy, Nelle Agnes; Beloit.
Cook, Curtis Mitchell; Talmage.
Cooper, Tom Jack; Bronson.
Cornelius, Mildred; *El Reno, Okla.*
Cowdery, Laura Jean; Neodesha.
Cowie, Anna Ruth; Kanapolis.
Cox, Charles Chauncey; Ellis.
Cox, Marguerite; Lawrence.
Craig, Thomas William; Spring Hill.
Cramm, Robert Frederick; Hutchinson.
Crane, Maurice Benjamin; Howard.
Creel, James Cleon; Parsons.
Creviston, Warren T.; Clay Center.
Cronic, Ruby Margaret; Greensburg.
Crothers, Aileen; Kansas City.
Crouch, Winifred Agnes; Hutchinson.
Crow, Charles William; *Kansas City, Mo.*
Culum; Reba; Chanute.
Cunningham, Paul Hart; Augusta.
Daley, Wallace Wilbur; *Kansas City, Mo.*
Darby, Helen; Washington.
Darby, Herbert Henry; Garden City.
Davidson, Alan John; Mankato.
Davis, Glenn Rosier; Muskogee.
Davis, Joe Ellis; Kansas City.
Davis, Russell Frank; Atchison.
Davis, Russell Peebles; Rosedale.
Davis, Ruth Winifred; Minneapolis.
Day, Lawrence Franklin; Onaga.

FRESHMEN—*Continued.*

Dean, Clifford Dallas; Glen Elder.
Dean, Dorothy Elizabeth; *Kansas City, Mo.*
DeBolt, Ralph Gardner; Altoona.
DeBolt, Randel Clark; Altoona.
DeLong, Jessie Mae; Pittsburg.
Dennis, Harold Dean; Sedan.
DeVore, Gladys Marie; Chanute.
DeWoody, Pauline; Lawrence.
Dick, Ethel Louise; Lawrence.
Dieter, Ada Mae; *Vail, Iowa.*
Dietrich, Francis Frederick; Lawrence.
Dietrich, Marjorie May; Lawrence.
Dillon, Helen Marie; Lawrence.
Dills, Isabelle; Hillsboro.
Dixon, Charles; Hiawatha.
Dixon, John Leonard; Bird City.
Dolson, Kathleen; McCune.
Donaldson, Lilian Cecilia; Iola.
Downing, Glen Ross; Lawrence.
Draper, William Earl; Lawrence.
Dunigan, Elmer George; Lawrence.
Dunkel, Marianna Goodman; Lawrence.
Dunkle, Eva Ruthella; Summerfield.
Dunnuck, Clair Vanzandt; Washington.
Durall, Bertha Alice; Chanute.
Duvall, Forrest McKinley; Ashland.
Dyche, George Oxtell; Lawrence.
Dyer, Raymond Joseph; Chanute.
Eaton, Frances Quaintance; Wichita.
Eberhart, Hazel Elizabeth Anna; Lawrence.
Eckles, Blanche Marie; Eskridge.
Edgar, Marion Adelaide; Lawrence.
Edwards, John C.; Walnut.
Eggleston, Hiram Ernest; McLouth.
Ehrhardt, Harold G.; Westphalia.
Eisberg, Doris; *Kansas City, Mo.*
Eklund, Edgar Eugene; Chanute.
Elgin, Agnes McClanahan; Arkansas City.
Elliott, Homer P.; Chanute.
Ely, Chester Clarence; Turon.
Embleton, Robert Ellis; Topeka.
Endacott, Herning; Lawrence.
Ermatinger, Lucille Helen; Fort Scott.
Ernst, Eleta Louise; Lawrence.
Espenlaub, Frederick David; Rosedale.
Ethridge, Lucile Margaret; St. George.
Evans, Lucille Perciphone; Tonganoxie.
Evans, Patricia McKernan; Topeka.
Evarts, Ralph Eaton; Arlington.
Eye, Lillian Maurine; Clay Center.
Eyer, Helen Frances; *Kansas City, Mo.*
Fairburn, Vernetta; Tonganoxie.
Farmer, Mary Louise; Liberal.
Farnum, Alice Mary; Kansas City.
Farr, William Fred; Miltonvale.
Faulconer, Joseph D.; El Dorado.
Fearing, Albert Harold; Burr Oak.
Fenning, James C.; Leavenworth.
Ferguson, Hollis Lyle; Olathe.
Ferguson, Marjorie Dee; Lawrence.
Ferris, Gladys G.; Stafford.
Finley, John Lewis; St. Francis.
Firebaugh, Howard; St. John.
Flick, Jesse A.; Pawnee Rock.
Flitner, Howard Edward; Lawrence.
Fort, Clifford Floyd; St. John.
Foster, Thomas L.; Argonia.
Fowler, Adeliene; Lawrence.
Fowler, Amos; Lawrence.
Frame, William Franklin; Bayard.
Francis, DeVaughn Earl; El Dorado.
Francis, Georgia; Cherryvale.
Francis, Thelma M.; Caldwell.
Franklin, Helen Maurine; Kansas City.
Franklin, Mary Loretta; Thayer.
Frazier, Glenn Chester; Athol.
Freeman, Amanda Florence;
Hot Springs, Ark.
Freese, Walter Verne; Gaylord.
Fricke, Burton Eugene; *Kansas City, Mo.*
Friend, Helen Euphemia; Lawrence.
Frieze, Clarence Iowa; Parsons.
Frisbie, Elsie Blanche; *Kansas City, Mo.*
Fritz, Eleanor Janevieve; Junction City.
Frohwerk, Edgar Allen; Kansas City.
Fuhrman, Aaron Henry; Kansas City.
Fuhrman, Arthur Alexander; Lawrence.
Gabriel, Pearl; Eudora.
Gaines, Ruth Eileen; *Kansas City, Mo.*
Gallagher, Eugene Thomas; Lawrence.
Gants, Isaac Estele; Melvern.
Gardenhire, Gertrude Rebecca; Winfield.
Garland, Dorothy Mary; Wellington.
Garrett, Helen Vivian; Lawrence.
Garrett, Judson Stewart; Lawrence.
Garrett, Pascal Angelo; *Guthrie, Okla.*
Garrison, Monroe Elmer; Wichita.
Gaskill, Leah Mildred; Lawrence.
Gast, Caroline Cora; Williamstown.
Gayford, Dorothy; *Salt Lake City, Utah.*
Gensman, Florence Gertrude; Garden Plain.
Gerard, Esther Lucille; Lawrence.
Gibbon, John William; Burlington.
Gibson, Georgia Blair; Lyons.
Giebrich, Florence Adeline; Lawrence.
Giffin, Glenn Orlando; Hymer.
Gilbert, Inda Ruth; *Salt Fork, Okla.*
Gilbert, Ridgway Hudson; Lawrence.
Gillen, Eugene William; Atchison.
Glenn, Eleanor; *Kansas City, Mo.*
Goff, Marion Arthur; Lawrence.
Goodman, Lorna Leigh; Marysville.
Goodnow, Walter Milton; Forest Lake.
Gordon, Elliott Emery; Edwardsville.
Goss, Patsy; *Pawhuska, Okla.*
Gossard, Edgar Harrison; Oswego.
Gottlieb, Frieda; Pleasanton.
Gould, Gladys Ethel; Lawrence.
Gould, Paul; Dodge City.
Gould, Ralph; Concordia.
Graeber, Dorothy Eleanor; Lawrence.
Graham, William R.; *Nowata, Okla.*
Grauer, Lisle Sigmond; Topeka.
Graves, Walter George; Lawrence.
Gray, Carrie Teresa; Atchison.
Gray, Leonard Thomas; Leavenworth.
Graybill, Russell; Newton.
Grayson, Lila Miriam; Lawrence.
Greason, Bernard; Holt.
Greason, Chas. Dillman; Paola.
Greeley, Leonard James; Leavenworth.
Greenleaf, Harold Kane; Lawrence.
Gregory, Stanley Martin; *Carrier, Okla.*
Griffin, Melvin Frank; Burlington.
Grimes, James Lewis; Ashland.
Grinnell, Ira; Mayetta.
Grosse, John Herman; Jamestown.
Grossman, Jerome E.; Kansas City.
Groves, Frances Valleta; Greensburg.
Gunnels, Henry Jay; Paola.
Guyer, Ted Orville; Stafford.
Haggart, Richard Bray; Lawrence.
Hall, Augusta Elnora; Lawrence.
Hall, E. Raymond; Lawrence.
Hall, Florence Lois; Pleasanton.
Hall, LeRoy; Lawrence.
Hand, Helen Josephine; Topeka.
Hardt, Leroy William; Sabetha.
Harford, Louise Frances; *Kansas City, Mo.*
Harkey, Mary Frances; Gardner.
Harkrader, Caroline; Pratt.
Harner, Olin Wade; Howard.
Harper, John Henderson; Kansas City.
Harrar, Archie Kenneth; Fort Scott.
Harrington, Edith Amorette; Kansas City.
Harris, Jane; Hutchinson.
Harris, John Carter; *Eastland, Tex.*

FRESHMEN—*Continued.*

Harris, Kathryn Cornelia; Princeton.
Harrison, Flora Beatrice; Garnett.
Harrison, Hortense Marie; Leavenworth.
Harrison, James Orick; Downs.
Hart, Lowell Carl; Rush Center.
Hart, Mildred Louise; Kansas City.
Hartman, Goldie Clara; Lawrence.
Hartman, Lula S.; Lawrence.
Harvey, Clarence Wilmer; Republic.
Hathmon, Grace Josephine; Wichita.
Havely, Helen Augusta; Girard.
Havens, Richard Klein; Wellington.
Hawk, Grant Murray; Lawrence.
Hayes, Ina Coyla; *Elk Head, Colo.*
Hays, Mary; Belleville.
Healey, Margaret Winslow; Leavenworth.
Heath, Bowen Coombs; Coffeyville.
Hedberg, Hollis Don; Falun.
Hemenway, Keith Austin; Junction City.
Herrick, Dan Carl; Lawrence.
Herriford, Neal T.; *Kansas City, Mo.*
Hershberger, Helen Irene; Greensburg.
Heryer, Elizabeth; *Kansas City, Mo.*
Higgins, Donald Anderson; Lawrence.
Higgins, Dorothy Hester; Lawrence.
Higley, Merle K.; Atwood.
Hill, John Harvey; Augusta.
Hills, John Robert; Wellington.
Hilt, Lawrence Mershon; *Buckner, Mo.*
Himpel, Jessie; Tonganoxie.
Hindman, Sara Jane; *Bartlesville, Okla.*
Hoefer, Aileen Edmonson; Kansas City.
Hoffman, Harold Clarence; Abilene.
Hogin, Russell; Kansas City.
Hole, Katherine Agnes; Monrovia.
Holland, David William; Pleasanton.
Holle, Fred William; Sylvan Grove.
Hollingbery, Fern Mae; *Mayville, Wis.*
Hood, Ernest Harrison; Wichita.
Hornbaker, Fred; Stafford.
Horner, Opal Loreine; Wichita.
Horton, Dorotha Mae; Goodland.
Horton, Luther Lynn; Elk City.
Hosford, Bertha Cecelia; Wichita.
Houston, Max Alexander; Wichita.
Howell, Lena Georgia; Garnett.
Howland, Imogen Myrtle; Ludell.
Hoyt, Rachel; El Dorado.
Hughes, Julian Christian; Lawrence.
Humphrey, Helen Elizabeth; Baxter Springs.
Hurst, Carroll Deane; Independence.
Hutchinson, Charles Edward; Wilson.
Ingham, Gladys Campbell; Esbon.
Irvin, Nadine Lillian; Anthony.
Isaacs, Fred Rife; Peabody.
Isaacson, Robert Howard; Leavenworth.
Jackson, Hubert; Parker.
Jaedicke, Frederick William; Lawrence.
Jaggard, Arthur Melvin; Bonner Springs.
Jaka, Helen Grace; Fort Leavenworth.
Janicke, Harry Omar; Washington.
Jay, Stanley Earl; Coffeyville.
Jenree, Paul Homer; Kansas City.
Jester, Charles Everett; Oxford.
Jeurink, Vernon Garold; Prairie View.
Johnson, Lawrence Lee; Greensburg.
Johnson, Roy Theodore; St. Francis.
Johnston, George Eldorado; Peru.
Johnston, Ralph Eugene; Haven.
Jones, Elsie Friend (Mrs.); Lawrence.
Jones, Lottie Rose; Kansas City.
Jones, Marie Eugenie; Council Grove.
Jones, Mildred D.; Lyndon.
Jones, Raymond Barton; Atchison.
Joslin, DeForest Frank; Topeka.
Jung, Manner Arthur; Topeka.
Kane, Lawrence William; Lawrence.
Karnes, Faye Effie; Lawrence.
Kaufman, Gladys Elizabeth; Leavenworth.
Kauffman, Harold Emerson; Abilene.
Kearney, Esmonde; Lawrence.
Kehler, Ward Glenn; Abilene.
Keiper, Theodore Walter, Jetmore.
Keith, Frances Marie; *Kansas City, Mo.*
Kell, Gilbert Alderman; Lawrence.
Kelsey, Georgia; Jewell.
Kennedy, Katheryn Elizabeth; *St. Joseph, Mo.*
Kerr, James Albert; Topeka.
Kimball, Paul Moulton; Neodesha.
King, Floyd Edward; *Kingfisher, Okla.*
Kingsley, Richard John; Wellington.
Kinkel, Paul Martin; Topeka.
Kirk, Dorothy Del; *Neosho, Mo.*
Kirkpatrick, Clifton; Kansas City.
Kirkpatrick, Hazen Leon; *Kansas City, Mo.*
Klock, Mildred Sophie; Lawrence.
Knouse, Myrtle Genevieve; Valley Falls.
Kosar, Clarence Dewey; Ada.
Kotapish, George Joseph; Irving.
Kramer, John Cooper; Wichita.
Krehbiel, Bertrand Isaac; Moundridge.
Kruegar, Max Leon; Independence.
Krugg, Mary Alberta; Coffeyville.
Krupp, James George; Wilson.
Kuhl, Oliver Clinton; Winfield.
Kuhlman, Fred Young; Ozawkie.
Laizure, Martha Mavis Rosalie; Lawrence.
Lamb, Mildred Elizabeth; Lawrence.
Lambert, James Dallas; Wilson.
Laming, Whitsed Caulton; Tonganoxie.
Langworthy, Clinton; Atchison.
Laptad, Agnes Theresa; Lawrence.
Larsen, Pearl Irene; Kansas City.
Larsh, Willard Hupp; Wichita.
Lavery, Euthalia Ann; *Kansas City, Mo.*
Lawsen, Fern Maurine; Marion.
Lebrecht, Gould; *Kansas City, Mo.*
Leeper, George Henry; Harper.
Lenington, George Edward; Beattie.
Lesh, Edna E.; Lawrence.
Lesh, Hazel M.; Lawrence.
Lesh, Lottie Lorene; Lawrence.
Letson, Irven Thomas; *Kansas City, Mo.*
Leu, Winfield Schley; Wichita.
Levi, Robert Louis; Liberal.
Lewis, Edwin Robert; Wichita.
Lewis, John Henry; Tonganoxie.
Lichty, Garland Harding; Wichita.
Liggett, Harry Glenn; Herington.
Lindstrom, Barrett Ambrose; Leonardville.
Linscott, Mayol Hartsel; Holton.
Linsdale, Jean M.; Lawrence.
Lobdell, Charles; Great Bend.
Lonborg, John C.; Horton.
Long, Carl Elijah; Agenda.
Longwell, Alden Lewis; Washington.
Luesing, Marguerite Anita; Council Grove.
Lukens, Graham St. C.; Muscotah.
Lutz, Clarence Orville; Sharon Springs.
Lutz, Madge Mary; *Kansas City, Mo.*
Lynn, Laurino Esther; Mankato.
Lynn, Marjorie; *Kansas City, Mo.*
Lynn, Opal; Lawrence.
Lyons, William Joseph; Leavenworth.
Mabry, Gladys Eva; *Lamont, Okla.*
Maddox, Vivian Mae; *Cloud Chief, Okla.*
Mahaney, Joseph Harold; Augusta.
Manaugh, Frank S.; Hill City.
Manning, Jess Oliver; Tescott.
Manson, Arthur Franklin; Kingman.
Markley, J. Scott; Salina.
Markley, Marjorie Omadell; Kansas City.
Martin, Alice Doris; *Chicago, Ill.*
Martin, Elizabeth; *Kansas City, Mo.*
Martin, Murray Edward; Linwood.
Marvin, Erma Mae; Blue Rapids.
Marvin, Etta Louise; Blue Rapids.

FRESHMEN—*Continued.*

Mason, Eugene Elbert; Lawrence.
Maxwell, Mildred Almyra; Lawrence.
Maxwell, Murry Wesley; Kansas City.
May, Guy; Lawrence.
Mayer, Wilma Mable; Lawrence.
Mehrten, Grace Catherine; Lawrence.
Mifflin, Dee; Attica.
Mikesell, Alma Elizabeth; Fredonia.
Mikesell, Jerome Byron; Atwood.
Miller, Donald Waymire; Burlington.
Miller, Elma Florence; *Kline, Colo.*
Miller, Elva Donna; Ransom.
Miller, John De Motte; Leavenworth.
Miller, Joseph Parker; Osawatomie.
Miller, Lawrence Thomas; *Kellerton, Iowa.*
Miller, Lorin Raymond; Highland.
Miller, Nellie Grace; *St. Joseph, Mo.*
Miller, Patty Alice; *Springfield, Mo.*
Miller, Ruth Lorene; *Neodesha.*
Mitchell, Annie B.; Lawrence.
Mitchell, Ralph Jacob; Cawker City.
Moeller, Emily Elizabeth; Chanute.
Monteith, Esther Eleanor; *Kansas City, Mo.*
Montgomery, Helen A.; *Cushing, Okla.*
Montgomery, Loran C.; Kansas City.
Moody, Susanna Smith; Lawrence.
Morgan, Henry Elza; Ottawa.
Morrison, Nora Nadine; Lawrence.
Morrison, Walter Leo; Lawrence.
Morrow, Harry Eugene; Blue Mound.
Morton, Francis Arthur; Kansas City.
Mothershead, Arthur Clifton; *Gashland, Mo.*
Mounts, Rochale Semnel; Wichita.
Mueller, Mrs. Ralph Edward; Kansas City.
Muir, Jessie Marie; Baxter.
Munch, Dorothy Farlar; Concordia.
Murphy, Vinnie; Blue Mound.
Musson, James Willard; Elk City.
McCarty, Ira; Altamont.
McClain, Josephine Evelyn; Lawrence.
McClelland, Nancy; Lawrence.
McConnell, Alton Horton; *Hume, Mo.*
McCoy, Alvin Scott; Dodge City.
McCoy, Mabel Evangeline; Wilson.
McCreight, Eugene James; Quenemo.
McGinnis, Pauline Lylyan; El Dorado.
McGrew, Edward Nash; Holton.
McGuire, John Gregory; Leavenworth.
McIlhenny, Dorothy Jane; Wichita.
McKowan, Samuel Edwin; Wellington.
McLean, John Joseph; Salina.
McQuirk, Laura Roghella; *Dilworth, Okla.*
Nash, Margurite Anna; Parsons.
Nevitt, Urless Dean; Lawrence.
Newcomb, Ernest Samuel; Lawrence.
Newkirk, William Thomas; Elk City.
Newman, Clifford Blenn; Dighton.
Neylon, A. J.; Paola.
Nichols, Jack; Savannah.
Nolan, Ellen Louise; Paola.
Nolan, Lillian Vena; Coffeyville.
Noll, Forrest Lee; *Kansas City, Mo.*
Noll, Louise; Wichita.
O'Bryan, James Edward; Lawrence.
Officer, Frances Emeline; Paxico.
O'Keefe, Keefe; Leavenworth.
Oldham, Sam Sweeney; Mulberry.
Oliver, Archibald Beatty; Lawrence.
Olmsted, Faith; Lawrence.
Olson, Edward Ted; Lawrence.
Opperman, Grace Beatrice; Baxter Springs.
Orelup, Merle Edward; Lawrence.
Osborne, Harvey Cyrus; Ashland.
Osborne, Philip; Wichita.
Osburn, Harriette L.; Augusta.
Oscar, Eula Mae; Kansas City.
Ott, Marcella; Pittsburg.
Ott, Maudina Cora; Lawrence.
Overman, Leland; Chetopa.
Paige, George L.; Iola.
Parker, David Findley; Hill City.
Parker, Eva Jo; *Custer, Okla.*
Parker, Powell Clayton; Kansas City.
Parker, William Ivan; Minneapolis.
Parrish, Gerald Merle; Kansas City.
Parsons, Ora Mae; Dodge City.
Paton, Billie Carl; Independence.
Patten, Theodore Fodelle; Kansas City.
Patterson, George Wallace; *Kan. City, Mo.*
Patterson, Harriet Alexander; Abilene.
Payne, Howard Elston; Olathe.
Pendleton, Virginia Maud; Lawrence.
Peters, Dora Catherine; Lawrence.
Phillips, Eugene Stanley; Pratt.
Pierce, Erle Gilbert; *Oregon, Mo.*
Poe, Wilgus Earl; Lawrence.
Pollock, Helen Alva; *Kansas City, Mo.*
Pontius, Herman Walter; Lawrence.
Pontius, Wilkie Charles; Lawrence.
Popplewell, Pascal Cloyd; Lawrence.
Porter, Gladys Marie; Strawn.
Porter, William Elliot; Udall.
Posey, Eva Fae; Lawrence.
Pospisil, Matilda; Wilson.
Pospisil, Philomena C.; Wilson.
Postlethwaite, Donald Hughes; Jewell.
Potucek, John Albert; Wellington.
Pratt, Ines Marie; Vinland.
Pratt, LaVern Ferdinand; Vinland.
Preyer, Ray R.; Girard.
Pugh, Pearl Elizabeth; *Kansas City, Mo.*
Purkaple, Evelyn Margaret; Neodesha.
Putney, Mary Alice; Leavenworth.
Quiett, Virginia; Lakin.
Ramey, Bonnie Beatrice; Lawrence.
Reb, John Maynard; Blue Rapids.
Rector, Margaret Stinson; *El Reno, Okla.*
Reding, Franklin Sherrell; Lawrence.
Rees, Decatur King; Solomon.
Reese, James Madison; Smith Center.
Reeves, Doris Lee; Lawrence.
Reeves, Gladys Rayline; Lawrence.
Reid, Virgil Paul; Stafford.
Reitzel, Delia Josephine; Waterville.
Rex, William Harold; *Drexel, Mo.*
Reynolds, Charles C.; Humboldt.
Reynolds, Phyllis V.; Lawrence.
Reynolds, Roland Earl; Lawrence.
Rice, Harold Burton; Parsons.
Richards, Edythe Bernice; Lawrence.
Richards, Samuel Arch; Jewell.
Richardson, George Melvin; Lawrence.
Richardson, Haseltine Antoinette; *Pueblo, Colo.*
Rick, Harold Scott; Horton.
Riedel, Michael Peter; Wa Keeney.
Riley, Marie; Lawrence.
Rising, Frank Watson; Lawrence.
Robb, Frank Barton; Scott City.
Roberts, Dorothy Mae; Waverly.
Robertson, Douglas; Leavenworth.
Robinson, Alma Edith; Lawrence.
Rogers, Lucile Eva; Lawrence.
Rooney, Frances Ida; *Kansas City, Mo.*
Root, Carl Olen; Iola.
Root, Edla Curtis; Kansas City.
Rose, Alec; Lincoln.
Rose, Clark Merval; Dodge City.
Ross, Clarice Gertrude; Wichita.
Rost, Francis J.; Belleville.
Routh, James Clifford; Mayetta.
Royse, George Thomas; Coffeyville.
Rubert, Horace Charles; Courtland.
Rucker, Floyd Alfred; Lawrence.
Rudell, Mary Mildred; Wilder.
Rugh, Karl Burkhart; Abilene.
Rust, Boyd Irvin; Washington.

FRESHMEN—*Continued.*

Ryan, Martin Schuler; Chapman.
Sacks, George Franklin; Leavenworth.
Saltmarsh, Helen Louise; *Kansas City, Mo.*
Sangster, Belva Avanel; Lyons.
Sawyer, Langdon Powers; *Kansas City, Mo.*
Sayler, Charles Hollis; Halstead.
Schafer, Harold Julius; McPherson.
Schlesener, Dorethea Augusta; Herington.
Schmidt, Frances Margaret; Humboldt.
Schmidt, Tom Finn; Galena.
Schmitz, Fred; Paola.
Schoenlein, Melba Grayce; Lawrence.
Schollenberger, Dorothy Eiglime; Wichita.
Schroeder, Frederick John; Chase.
Schwanbeck, Myrtle Elizabeth; Collyer.
Scott, Helen; *Hitchcock, Okla.*
Scott, Lendon Leo; Great Bend.
Seehrist, Charlie William; Meriden.
Seever, Harold Elmo; Atchison.
Selig, Hope Delo; Lawrence.
Selig, John; Lawrence.
Senor, Muriel Elizabeth; Lawrence.
Seybold, Geo. Monroe; Peru.
Shaner, Mary Kathryn; Lawrence.
Shannon, Ina Gladys; Barnes.
Sharpless, Lois Abigail; Atchison.
Shepardson, Irene Eleanor; Pittsburg.
Shepard, Nancy Elizabeth; Lawrence.
Sherwood, Zoda Loraine; Burlington.
Shields, Floyd Francis; Wathena.
Shoemaker, Florine Myrtle; Severy.
Shuey, Herbert; *Kansas City, Mo.*
Shure, Joseph; *Kansas City, Mo.*
Shutt, Lillia Mary; Wilburton.
Simons, Janet Gertrude; Lawrence.
Simons, Julia Katheryne;
Idaho Falls, Idaho.
Sims, Allen E.; Pratt.
Sinden, James Whaples;
Canon City, Colo.
Slater, Helen Adeline; Rosedale.
Slaughter, Ilee Elizabeth;
Chillicothe, Mo.
Slifer, Clyde William; Nickerson.
Slimm, William John; Wilson.
Smart, Carolee B.; Lawrence.
Smith, Agnes Naoma; Delphos.
Smith, Audrey Elizabeth; Coldwater.
Smith, Floyd F.; Chanute.
Smith, George Walter; Wichita.
Smith, Jack Wright; *Durango, Colo.*
Smith, Katie Grace; Kingsdown.
Smith, Loree Donald; Wilmot.
Smith, Murray Owen; Mankato.
Smith, Riley; Kansas City.
Smith, Rita Pauline; Ellinwood.
Smith, Thelma Irene; *Kansas City, Mo.*
Smith, Warren Carter; Horton.
Smythe, Burwell Barton; Holton.
Sorter, Helen Carlisle; Leavenworth.
Sowder, Charles Joseph; Toronto.
Speck, Clara Marie; Nortonville.
Speck, Edmund Frances; *Kansas City, Mo.*
Speck, Homer Leroy; Lawrence.
Spencer, Catherine Amelia; *Denver, Colo.*
Spencer, Kenneth A.; Pittsburg.
Spidell, Cecil P. Bithel; Chanute.
Spradling, George Clayton; Liberal.
Springer, Charles Allison; *Quitman, Mo.*
Stanley, Constance Eleanor; Lawrence.
Stanley, Vivian Maxwell; Lawrence.
Stearns, Arnold William; Kansas City.
Steele, Ivan Woodard; Abilene.
Stephens, Everett Theodore; St. Francis.
Sterling, Philip Fellows; Lawrence.
Sterling, Robert; Lawrence.
Stetler, Donovan Beardsley; Wichita.
Stevens, Richard Barnett; Lawrence.
Stevenson, Wesley Louis; Kansas City.
Stillwagon, Leona Eva; Kansas City.
Stimmel, DeLoss Walker; Mullinville.
Stokes, Harold Milton; *Vinita, Okla.*
Stong, Fred Earnest; Elk City.
Stowers, Twila Elizabeth; Kansas City.
Straulman, Francis Wilson; Dodge City.
Strong, Charles Curtis; Lawrence.
Strong, Mary Kathryn; Lawrence.
Strope, Maxwell Lawrence; Chanute.
Stubbs, Margaret Esther; Lawrence.
Sutton, Harold Smith; Liberal.
Swayze, Nelson Ryan; Wathena.
Sweet, Cyrus Bordeen; *Kansas City, Mo.*
Symns, William A.; Hutchinson.
Tamm, Ruth; Downs.
Taylor, Agnes; Hutchinson.
Taylor, Corbon J.; White Cloud.
Taylor, Edwin A.; Lawrence.
Taylor, Randol; *Kansas City, Mo.*
Tebbe, Mary; Lyons.
Tennel, William Webb; Sabetha.
Tenney, Emily Elizabeth; Lawrence.
Terrey, Ruth; Winfield.
Tholen, Thecla; Humboldt.
Thomas, Aileen Lois; Lawrence.
Thomas, Dorothy; *Detroit, Mich.*
Thomas, Marjorie; Emporia.
Thompson, Frank Howard; Kansas City
Thompson, Marguerite Madline; Lawrence.
Thompson, Marion Hoch; Lawrence.
Thompson, Theodore Rowland; Vinland.
Thomson, Victor Finley; Pratt.
Thornburg, Charles William; Potter.
Thorp, Virginia Richardson; Marion.
Throckmorton, Mary Ver; Columbus.
Tibbals, Lucile Irene; Lawrence.
Tibbetts, Maynard Russell; Lawrence.
Tinkler, Vernon Edward; Gypsum.
Tipton, Glenn R.; Westphalia.
Tonkin, Willard Frederick; Colony.
Torson, Martin George; Kansas City.
Traylor, Lyman Leroy; *Raton, N. Mex.*
Tucker, Elizabeth Jane; Lawrence.
Tuepker, Gilbert Henry; *Okmulgee, Okla.*
Tuttle, Emmett Joseph; Kansas City.
Twine, Pliny Ralph; Kansas City.
Ulm, Ralph Donald; Lawrence.
Houten, Wendell Van; *Forrest City, Ark.*
Vaniman, Kenneth George; Wichita.
Valkenburg, Lester Van; Beloit.
Vaughan, Charles Clarke; Kansas City.
Vaught, Mary Eleanor;
Oklahoma City, Okla.
Vesper, Vernon Alfred; Hill City.
Vickrey, Marguerite Geraldine; Lawrence.
Vincent, Cranston Gordon; Topeka.
Volker, Violet Mae; Zenith.
Wagstaff, Jeannete C.; Lawrence.
Wahlenmaier, Floyd Camp; Kansas City.
Waldron, Raymond William; Bethel.
Walker, Esther Marie; Lawrence.
Walker, Margaret; Lawrence.
Wallace, Margaret; Winfield.
Wandling, Lemoyne; Ellis.
Warner, Arthur Ward; *Kansas City, Mo.*
Warner, Clifford Clemens; Osawatomie.
Washington, Ruth; Kansas City.
Waterson, Corwin Elverto; Vinland.
Watson, Alena Maude; Vining.
Watson, Ralph E.; Dodge City.
Wat, Harold Charles; Independence.
Waugh, Thomas Orlin; Oskaloosa.
Weber, Elmer Henry; Ellinwood.
Werby, Samuel; Kansas City.
Wetzel, Harold Herd; Lawrence.
Wheeler, Carl Frank; Wichita.
Wheeler, Joe Edward; Sharon Springs.

FRESHMEN—*Concluded.*

Whisner, Ethel Cecelia; Fontana.
White, Harry Lifler; Blue Mound.
White, Neva Mae; Quenemo.
White, Preston Hardy; Lawrence.
Willhite, Roy Donold; Toronto.
Williams, Henry Edgar; Lane.
Williamson, Floyd Thomas; Vinland.
Winblade, Earl Lawrence; Chanute.
Winship, Ruth Estelle; Syracuse.
Woestemeyer, Henry James; Bethel.
Wolf, Jacob Arthur; Wichita.
Woodside, Charles Truman; Geuda Springs.
Wynkoof, Nathan David; Troy.
Yoeman, Josephine Mary; Lawrence.
Young, Grace Angeline; Cawker City.
Ziebell, Clemens Leo; Herington.
Zinser, Dale Richard; Lawrence.
Zuber, Joseph Dewey; Waldron.

SPECIALS.

Aaron, Madeleine Germaine; Wichita.
*Abell, Donald; Riley.
*Ainsworth, Alfred; Lawrence.
*Alexander, Kenneth; Kansas City.
Allen, Mrs. Bessie Milton; Lawrence.
*Allen, D. F.; Kansas City.
*Allison, Ellis J.; Chanute.
*Altman, Josephine; Kansas City.
*Anderson, Harold; Kansas City.
*Anderson, Karl J.; Ottawa.
*Anderson, Mabel; Vesper.
*Anderson, Martha A.; Vesper.
*Anderson, Pearl C.; Vesper.
*Anderson, William; Lawrence.
*Andrews, George Lindley; *Los Angeles, Cal.*
Apollonio, Nicholas; Milton.
*Arnold, Grace; Lawrence.
*Atkinson, Janet; Lawrence.
*Atwood, Marguerite; Caney.
*Austin, Merrill T.; Mullinville.
*Barber, Ira E.; Humboldt.
*Barksdale, Norval P.; Kansas City.
*Barnes, Gladys; Barnes.
Beers, Raymond Albert; Topeka.
*Bell, Arnold A.; Great Bend.
*Bell, Katherine; Cottonwood Falls.
*Beltz, Willis H.; Weir.
*Bermejo, Fernando V.; *Panay, Capiz, P. I.*
*Bihr, Samuel W.; Lawrence.
*Binney, Sarah; *Strawn, Tex.*
*Bivin, Arrah; Erie.
Blakemore, Virgil; Hutchinson.
*Boell, Sarah; Wamego.
*Bolinger, Margaret; Great Bend.
Bomar, William Ernest; Wichita.
*Bond, Herbert A.; Lawrence.
Boyce, Allen Ward; Minneapolis.
Boyd, Agnes; Kansas City.
*Bradley, Cecil; Greensburg.
*Brandimore, Marianne; Kansas City.
*Brehm, William W.; Hutchinson.
*Bressem, Paul E.; Sabetha.
*Brice, Mildred; Cimarron.
*Brodie, John; *Des Moines, Iowa.*
*Brotherson, Lewis; Kansas City.
*Brown, Francis H.; *Kansas City, Mo.*
*Brown, Hubert H.; *Peculiar, Mo.*
Brown, Mrs. Martha Snow; Lawrence.
*Brown, Pauline A.; Lawrence.
*Brown, Robert E.; Kansas City.
*Bruner, Charles F.; Hiawatha.
*Buck, Sadie; Lawrence.
*Burgert, Alice; Lawrence.
*Burkhalter, Elizabeth; White Cloud.
*Burnam, Lura; Oskaloosa.
Buskirk, John Raymond; El Dorado.
*Butler, Paul L.; Erie.
*Caldwell, Martha Belle; Lecompton.
*Campbell, Clyde B.; Lawrence.
*Campbell, Harriet; Lawrence.
*Campbell, Mary J.; Meade.
*Carder, Leone; Lawrence.
*Carlton, Luther F.; Garden City.
*Carlton, Marjorie; Garden City.
Carman, Charles Benjamin; Lawrence.
*Carpenter, Raymond H.; Topeka.
Carson, Leon Donald; Lawrence.
*Cavanaugh, Dorothea; Dighton.
*Chandler, William P.; Lawrence.
*Chapman, Doris; Conway Springs.
*Charvat, Alice; Phillipsburg.
*Christopher, Velma; *Holly, Colo.*
*Claggett, Gladys; Atchison.
*Clark, Amy B.; Lawrence.
*Clark, Merle; Coffeyville.
*Clarke, Thomas M.; Lawrence.
*Clem, Irene; Chanute.
Clevenger, Herschel X.; Lawrence.
*Cody, Ellene N.; Clay Center.
*Coffelt, Gola; Lawrence.
*Colter, Lloyd C.; Lawrence.
*Compton, James H.; Bonner Springs.
Cone, Constance May; Burlington.
*Conroy, William P.; Beloit.
*Copp, William; Kinsley.
*Coutts, Warren H.; El Dorado.
*Cox, Nadine; Lawrence.
*Craig, Dorothy; Osage City.
*Crews, Charles M.; Topeka.
*Cronk, Seymour; Lawrence.
*Crump, Leah; Kansas City.
*Cunningham, William B.; *Kansas City, Mo.*
Darby, George Thomas; Kansas City.
*Davis, Fred R.; *Kansas City, Mo.*
*Davis, J. Clark; Salina.
*Davis, Jeanette M.; Lawrence.
*Davis, Kathleen; Lawrence.
*Davis, Robert K.; Buffalo.
Davis, William Ray; Verdi.
*Day, Gertrude; Greensburg.
Deaver, Carol Franklin; Sabetha.
*Degering, Carl A.; Lawrence.
Denton; Frank Richard; Arkansas City.
*DePew, Phyllis; Howard.
*Dickson, Jack; Lawrence.
*Dillon, Dale; Coffeyville.
*Dixon, William J.; Lawrence.
*Doerr, L. Isabel; Larned.
*Doerr, Pauline; Larned.
*Douglas, Clarence; Lawrence.
*Dugger, Hazel; Lewis.
Duncan, Victoria Elizabeth; *Kansas City, Mo.*
*Doty, William M.; Garnett.
*DuVall, Ralph; Kansas City.
*Dyer, Erma; Lincoln Center.
*Edwards, Leon E.; Walnut.
*Eidson, William M.; Liberal.
*Eikenberry, Mrs. Florence; Lawrence.
Eliot, Theodore Lessinghaus; *Portland, Ore.*
*Ellenberger, Deloras; El Dorado.
*Ellfeldt, Helen M.; *Kansas City, Mo.*
*Ellington, Princess; Lawrence.
*Elliott, Altyn; Princeton.
*Elsey, Elisabeth; Lawrence.
*Endacott, Paul; Lawrence.

* Enrolled in some other school of the University.

SPECIALS—*Continued.*

Evans, Harold Clinton; Topeka.
*Evans, Wade; Wa Keeney.
*Fenning, James C.; Leavenworth.
*Filson, George W.; Kiowa.
*Fisher, Marguerite; Caney.
*Fitzgerald, Gladys; Kansas City.
*Fixley, Everett H.; *Whitewright, Tex.*
Fleming, Irene Elizabeth; Lawrence.
*Flick, Jesse; Pawnee Rock.
*Foltz, Elda; Belle Plaine.
*Foster, Richard B.; *Franklin, Pa.*
*Fowler, Alfred D.; Lawrence.
*Fowler, Edna; Lawrence.
*Fox, Paul S.; Lawrence.
*Frederick, Carl G.; Bonner Springs.
*Freshman, Myer; Parsons.
*Fridell, Daisy F.; Robinson.
*Gage, Dorothy; Minneapolis.
*Garlinghouse, Marjorie; Iola.
*Gard, Spencer; Iola.
*Garner, Esther; Haviland.
*Garvin, Evart C.; St. John.
*Gatewood, Alexander; Kansas City.
*Gebhards, Inez; *Chandlerville, Ill.*
*Gerety, John H.; Wichita.
*Gibson, Clara G.; Wa Keeney.
Gillpatrick, James Harry; *Kansas City, Mo.*
*Glahn, Eugene; Lawrence.
*Glanville, Joe C.; Kansas City.
*Glaskin, Geo. V.; *Kansas City, Mo.*
*Goldsby, Katherin; *Kansas City, Mo.*
*Goodell, Clair N.; Independence.
*Gordon, Zelma; *Straw, Mont.*
*Gould, Ruth A.; Wilroads.
*Graves, Arthur A.; Lawrence.
*Green, Ruth; Kiowa.
*Greenwood, Gilbert G.; Lawrence.
*Griffin, Robert E.; Hutchinson.
*Gwyn, Jean; Waverly.
*Hackney, Eleanore; Lawrence.
*Hackney, Woodward Davis; Lawrence.
*Hagen, Eugene; Ellinwood.
*Haggart, Robert; Lawrence.
*Hait, Josephine; Leavenworth.
*Hale, Thelma; Yates Center.
*Hamacher, Glenn L.; Robinson.
Hambleton, Lola; De Soto.
*Hamilton, George; Topeka.
*Hand, Miriam E.; Topeka.
*Hanna, Mary M.; Courtland.
*Harding, William T.; Lawrence.
*Harker, Vivian; Lawrence.
*Harris, Alberta; Lawrence.
*Harris, Clarence; Horton.
*Hart, Edwinna; Macksville.
*Harte, Klonda F.; Cunningham.
Hartman, Joseph W.; Sedgwick.
*Haskin, Helen; Lawrence.
*Haynes, Georgia; Parsons.
*Helmich, Dora; Lawrence.
*Henderson, Clyda; Phillipsburg.
*Hershberger, Crystal; Greensburg.
*Herthel, Ruth; Claflin.
*Hess, Benjamin; Lawrence.
*Hiatt, May F.; *Kansas City, Mo.*
*Higgins, Dorothy; Lawrence.
*Hill, Aeo; Neodesha.
*Hilsman, Itasca; *Albany, Ga.*
*Hodges, Van Dyke; *Kansas City, Mo.*
*Hohner, Carl D.; St. John.
*Hohner, Leonard F.; St. John.
*Holiday, Ralph M.; Lawrence.
*Hollie, Harrison; Wichita.
*Hoover, Halbert H.; Lawrence.
*Horr, Worthie H.; Lawrence.
*Howard, Hubert; Topeka.
*Howe, John Clark; *Oronogo, Mo.*
*Howe, Orrin K.; Lawrence.
*Hoyt, Reginald H.; Lawrence.
*Huenergardt, Frances; Marion.
*Hughes, Paul B.; Lawrence.
Hulsman, Raymond Francis; Forest Lake.
Hunter, Robert E.; Kansas City.
*Huntzinger, John L.; Lawrence.
*Hutchins, Inez; Topeka.
*Hyre, Mabel; Lawrence.
*Icenhower, Emory A.; Lawrence.
*Icenhower, William; Lawrence.
*Idol, Louise J.; Robinson.
*Isaac, Orin L.; Lawrence.
*Jackman, Laura S.; Wichita.
*Jameson, Elsie; Abilene.
*Janes, Gale McCray; *Kansas City, Mo.*
*Jensen, Marie; Emporia.
Joachim, Lloyd John; Lawrence.
*Johannes, Marian; Lawrence.
*Johnson, Cleta; Lawrence.
Johnson, Earl Jaquius; Winfield.
*Jones, Sarah; Hutchinson.
*Judy, June; Lawrence.
*Keener, Helen L.; *Dalhart, Tex.*
*Kell, Helen; Lawrence.
*Kellerman, Alphon W.; *Raton, N. Mex.*
*Kirby, Lena R.; *Independence, Mo.*
*Knoll, Venus M.; Severy.
*Kohler, Bula; *Kansas City, Mo.*
*Koontz, Fern; Columbus.
*Kraybill, LeRoy; Eudora.
Kuebler, Roland; Pamona.
*Lamb, George W.; Piper.
*Lamb, Paul; Yates Center.
*Larkin, Katherine; Lawrence.
*Larkin, Willard R.; Haviland.
*LaSure, Mildred; Russell.
*Lauterbach, August; Colby.
*Lawson, Ilda; *Nowata, Okla.*
*Lee, Eva; Yates Center.
Leibengood, Anna Rebeckah; Lawrence.
*Lewis, Edwin R.; Wichita.
Liggett, Harry Merrill; Tribune.
*Light, John S.; Winfield.
*Lightner, Verna; Mound City.
Lindley, Ernest Kidder; Lawrence.
*Lines, Marion B.; Neodesha.
*Loflin, Ethel Evangeline; Ellis.
*Loftus, Thomas B.; Lenexa.
*Love, Robert E.; *Caviness, Tex.*
Lowry, Mary Elizabeth; *Kansas City, Mo.*
*Lynam, George; Moline.
*Lynn, Hazel; Lawrence.
*Magill, Lucile; *Holdrege, Neb.*
*Malone, Catherine E.; Caldwell.
Marshall, Thomas Ralph; Coffeyville.
*Martling, Francis H.; Elk City.
*Mason, Robert L.; Wichita.
*Matthaei, Parl V.; Great Bend.
*Means, Nellie; *Kansas City, Mo.*
*Meng, Carl L.; Spring Hill.
*Messmore, Harold E.; Morrill.
Meuffels, Herman Dewey; Lawrence.
*Meyer, Everett R.; Bison.
*Mickey, Marie; Morrill.
*Middlekaupf, Rose E.; Lawrence.
Miles, Earl Etherton; Garden City.
Millar, John Edward; *Kansas City, Mo.*
*Miller, Bertram; Wichita.
*Miller, Earl; Burr Oak.
*Miller, Horace L.; Iola.
*Miller, Juanita; *Muskogee, Okla.*
Miller, Norma Elsa; Onaga.
Milton, Ethel Frances; Lawrence.
*Moore, G. Catherine; Lawrence.
*Moore, Malcolm C.; *Rensselaer, Mo.*
*Montano, Fermin; *Philippine Islands.*

* Enrolled in some other school of the University.

SPECIALS—*Continued.*

*Mount, Julia; *Pueblo, Colo.*
Myers, Mabel; *St. Joseph, Mo.*
*McAdams, Carl Armstrong; Independence.
*McCain, Taylor; Atwood.
*McCall, Dana; Hiawatha.
*McChesney, Marian; Clay Center.
McCullugh, Lucy Lyne; Independence.
McFarland, Paul William; Lawrence.
*McGee, Richard R.; Lawrence.
*McKenzie, Howard; Lawrence.
*McLaughlin, Louise; Greensburg.
*McMullen, Elva; Effingham.
*Neely, Vera; Lawrence.
*Nelson, Iril; Lawrence.
*Nelson, Loraine; Lawrence.
*Neville, Homer L.; Kansas City.
*Newton, William R.; Lawrence.
Nichols, James Urvin; Emporia.
Nohe, Carmille H.; Lawrence.
*Noll, Louise; Wichita.
Oakland, Marion Marie; Goodland.
*O'Brien, Elizabeth; Lawrence.
*O'Dowd, Kathryn; Newton.
Oles, Lawrence Maple; Independence.
Oles, Paul Stevenson; Independence.
O'Meara, Edith Florence; Onaga.
*Orlupp, Oscar L.; Topeka.
*Osborne, Ralph H.; Ashland.
Ott, Geraldine Louise; Pittsburg.
*Overturf, Harold H.; Bird City.
*Pagett, Glen; Cheney.
*Pagett, Harold; Cheney.
*Pailen, John E.; Garrison.
Painter, Benjamin Harrigan; Beverly.
*Paire, Leonard; Leavenworth.
*Palmer, Madge N.; Lawrence.
*Park, Benjamin P.; White Cloud.
*Partridge, Donald X. F.; Delphos.
*Patterson, Doris; Lawrence.
*Patterson, Howard D.; *Kansas City, Mo.*
*Patterson, Marian; Abilene.
*Patterson, Marjorie; Harper.
*Peabody, Irene; *Springfield, Mo.*
*Pearce, Earl W.; Peabody.
*Peckham, Jacob; Clay Center.
*Pester, Benjamin; Hillsboro.
*Peters, Charles M.; Paola.
*Peterson, Amos; Marquette.
*Pigg, Frank; Bonner Springs.
*Pimentel, Rufino P.; *Philippine Islands.*
*Pool, Maeryta, D.; *Mt. Vernon, Ill.*
*Porth, Wallace S.; St. Francis.
*Pottorff, Minnie; Severy.
*Pugh, Clifford; Junction City.
*Pumphrey, Essie; *Fort Worth, Tex.*
*Putney, David H.; Leavenworth.
*Quiett, William E.; Ozawkie.
*Quinlan, Amos L.; Linwood.
*Ramseyer, Margaret; Emporia.
*Randolph, William H.; Lawrence.
*Rau, Gus; *Kansas City, Mo.*
*Reagan, Maurine; *Clovis, N. Mex.*
Reber, Stella Bernice; *Kansas City, Mo.*
Reckards, Louise C.; Topeka.
*Reedy, Howard L.; Lawrence.
*Reeves, Blanche Bernice; Lawrence.
*Reule, Vivian; *Kansas City, Mo.*
*Reynes, B. M.; Lawrence.
*Rinehart, William G.; Lawrence.
*Robbins, Riley; Yates Center.
Robison, Chaine; Wichita.
*Rogers, Forrest M.; Wellington.
*Roth, Jesse; *Lamoni, Iowa.*
Ryle, George Walton; Lawrence.
*Ryan, Joseph B.; Kansas City.
*Ryan, Leona; Garden City.
*Ryan, Mary E.; Lincoln.
*Sacher, Ruth; Holton.
Salisbury, Maurice Barnett; Osawatomie.
*Sample, Hilma; Oakville.
*Sanders, Robert D.; Kansas City.
*Sapp, John B.; *Jasper, Mo.*
*Sarmiento, Louis; Lawrence.
*Scafe, Dennis V.; *Joplin, Mo.*
Schall, Jack; Dodge City.
*Schmidt, Velma; *Kansas City, Mo.*
*Schoewe, Mrs. W. H.; Lawrence.
*Schreiber, Edwin; Atchison.
*Schrieber, Isabel; Atchison.
*Schwartzkopf, Edward A.; Bison.
*Scott, James H.; Sterling.
*Seaman, Mildred I.; Lawrence.
*Semon, Junior; Lawrence.
*Senior, Marguerite; Waverly.
Shaw, Chester Lee; Hiawatha.
*Shaw, Minnie; Kansas City.
Shepard, Owen D.; Leoti.
*Sheppard, Earl A.; Lawrence.
*Shipley, Zada; Neodesha.
Shore, Chester Klinefelter; Benton.
*Shuler, Paul H.; Lawrence.
Siler, Nora Emma; Lawrence.
*Simmonds, Verne; Lawrence.
*Simpson, Guy Criss; Atchison.
Sinnet, Caryl D.; Cherryvale.
Skinner, Ray Woodward; Osborne.
*Slason, Earl B.; Stockton.
*Smalley, Eloda; Oswego.
*Smiley, Stanton L.; Lawrence.
*Smith, Cecil A.; Elkhart.
Smith, Lillian Beth; Neodesha.
Smith, Lola B.; Lancaster.
*Smith, Verner F.; Hutchinson.
Smith, Mrs. Walter R.; Lawrence.
*Snare, Raymond J.; Abilene.
*Snart, Fred G.; Grinnell.
Snow, Ira James; Lawrence.
*Spotts, Ruth; Lawrence.
*Sprong, Wilbur L.; Lawrence.
*Stacey, Mary H.; Leavenworth.
*Stark, Stutley H.; Lawrence.
*Stark, John B.; Bonner Springs.
*Stelzer, J. Irving; Lawrence.
*Stevens, Rachel; Lawrence.
*Stevenson, Edward; Lawrence.
*Stevenson, George L.; Lawrence.
*Stowers, Virginia; Kansas City.
*Strahn, Allen D.; Lawrence.
*Stranathan, James; Wilsey.
*Stricklan, Clarence J.; Coffeyville.
*Strickland, John F.; Alva.
*Strickler, Ruth L.; Emporia.
*Strong, Ruth; Lawrence.
*Struble, Geo. Goodall; Glasco.
*Sturgeon, John Martel; *Thomas, Okla.*
*Sudsberry, Marvin L.; Lawrence.
*Summers, Myra; Lawrence.
Swanson, Clarence William; Marquette.
*Sweeney, Herbert L.; Augusta.
*Symns, Arthur T.; Hutchinson.
Taggart, Robert; Independence.
*Tann, William E.; *Kansas City, Mo.*
*Tapper, Twila M.; Goodland.
*Tate, Cecil A.; Lakin.
*Taylor, James O.; Topeka.
Tester, Corinne Lesh; Arkansas City.
*Testerman, Roy E.; Lawrence.
*Thomas, Elizabeth; *Springfield, Mo.*
*Thompson, Homer; Wichita.
*Thompson, Todd S.; Maryville.
*Threlfall, James; Wichita.
*Toomey, Richard A.; Lawrence.
Trimmell, Guy George; Garnett.
*Troup, Lilian; Concordia.
*Trumble, Helen A., Lawrence.

* Enrolled in some other school of the University.

SPECIALS—*Concluded.*

*Tucker, Ramona H.; Lawrence.
Turner, Harry McDougal; Lawrence.
*Turner, Joseph H.; Howard.
*Van Zandt, Meda; Hutchinson.
*Ver, Ramon Q.; Lawrence.
*Washington, Herschell; Leoti.
*Watson, Katie B.; Vining.
*Weed, Helen; Lawrence.
Weeks, Arline Gertrude; Lawrence.
*Welwood, George A.; Wichita.
Werner, Henry; Lawrence.
*Wetzell, E. George; *Kansas City, Mo.*
*Wheeler, Dorothy M.; Fredonia.
*Whitcraft, Enterprise L.; *Kansas City, Mo.*
*White, Bonnie; *Tonkawa, Okla.*
*White, James B.; Turon.
White, Paul Welrose; Pittsburg.
*White, Preston H.; Lawrence.
*White, Reba; Neodesha.
Whyte, Kenneth Moore; *Kansas City, Mo.*
*Wilbur, George; Williamstown.
*Wilkinson, Xellis H.; Kingman.
*Williams, John H.; Kansas City.
*Williams, Ruth; Preston.
*Williamson, Blake A.; Edwardsville.
*Wilson, Alexander R.; Meade.
*Wilson, Clarence; Lawrence.
Wilson, Daphine Elizabeth; Chanute.
Wise, Andrew B.; Kingman.
*Wolf, Albert R.; Paola.
*Woodburn, Joel T.; Parsons.
Woodruff, Laurence Clarke; Lawrence.
*Worden, Austin J.; Arma.
*Wyatt, Wayne; Independence.
*Wynn, Warren H.; Lynn.

* Enrolled in some other school of the University.

SCHOOL OF ENGINEERING.

SENIORS.

Anderson, Harold William; *Kan. City, Mo.*
Austin, Verle Lorraine; Irving.
Bell, Arnold Arch; Ottawa.
Beltz, Willis Henry; Weir.
Bennett, Clarence; Stafford.
Bihr, Samuel Wilks, jr.; Lawrence.
Bonebrake, Frederick Thompson; Topeka.
Bown, William Forest; *Kansas City, Mo.*
Bradshaw, George Watson; Randall.
Bressem, Paul Edward; Sabetha.
Bunn, John William; Humboldt.
Bush, Paul Lewis; Topeka.
Chandler, George Leland; Topeka.
Cline, Glenn William; Fort Scott.
Colt, Donald Dennison; *Kansas City, Mo.*
Cronk, Seymour Hays; Stafford.
Davis, John Clark; Salina.
Deewall, Lorin William; Argonia.
Degering, Carl Adolph; Lawrence.
Dodd, John Milton; Esbon.
Eckel, Carl Henry; Douglass.
Ege, Howard Davis; Lawrence.
FitzGerald, Edgar James; *Roswell, N. Mex.*
Fox, Paul Samuel; Lawrence.
Googins, Guss Livingston; Fredonia.
Hanlon, Harry William; Sterling.
Holland, Paul Oscar; Pleasanton.
Icenhower, William M.; Lawrence.
Johnson, Martin Marion; Salina.
Johnson, William Scott; Lawrence.
Judkins, Bert Chaffin; *Poteau, Okla.*
Kanode, Ralph Dewey; Topeka.
Kennedy, Miles Simon; Benedict.
King, Francis Myron; Ottawa.
Kinkel, John Franklin; Topeka.
Lefevre, Armand Joseph; Caney.
Lynn, George; Lawrence.
Mace, Olin Eugene; St. John.
March, Harry Allen; White Cloud.
Martling, Francis Hodgen; Kansas City.
Mason, Ray Benjamin; Lawrence.
Mason, Robert Frazier; *Kansas City, Mo.*
Mason, Warren Perry; Lawrence.
Means, Raymond Dwight; Ottawa.
Merritt, Paul Prowers; McCune.
Messmore, Harold Eli; Morrill.
Moshchansky, George Alexander; *Russia.*
Mott, Thomas Mitchell; *Kansas City, Mo.*
Myers, Jared L.; Alden.
McCall, Dana Hewitt; Hiawatha.
McGee, Richard Royal; *Kansas City, Mo.*
Nettels, George Edward; Topeka.
Neubauer, Laurence Jesse; Lawrence.
Pendergast, Hugh Joseph; *Kansas City, Mo.*
Perkins, Lucius Junius; Lawrence.
Quinlan, Amos Lawrence; Linwood.
Randolph, William Marcus; Lawrence.
Reid, Theodore Carey; Stafford.
Remmers, George Lawrence; Marion.
Robertson, John Milton; *Silver City, N. Mex.*
Rodgers, Wilmer Howard; Newton.
Ryan, Royal Rufus; Chapman.
Sackett, Guy Elliott; Moline.
Schweitzer, John Herman; Kansas City.
Sherman, Marvin Osmer; Kansas City.
Snare, Raymond Jordan; Abilene.
Snyder, Paul Cline; Hutchinson.
Soxman, Lee Forest; Lawrence.
Spangler, Karl Bauman; Lawrence.
Stauffer, John Manasses; Randall.
Stevenson, Clyde Duncan; Lawrence.
Stranathan, James Docking; Wilsey.
Thomas, Lewis Henry; Louisburg.
Thompson, Edward Albert; Topeka.
Todd, John Malcolm; Fort Scott.
Tracey, John Charles; Lawrence.
Wahlstedt, John Robert; *Kansas City, Mo.*
Wells, William Bacon; Lewis.
White, Karl Hardy; Lawrence.
White, Oliver Wendell; Solomon.
Wright, Thorpe Edwin; Independence.

JUNIORS.

Albach, John Henry; Lawrence.
Allison, Royden Earl; Princeton.
Alport, Abraham J.; Coffeyville.
Appleby, Harry Addison; Cedar Vale.
Barber, Ira Everett; Humboldt.
Barnby, Herbert Alexander; *Kansas City, Mo.*
Beard, Dwight Moody; Downs.
Benson, Dale Louis; Greeley.
Berkey, Fred Minton; Ottawa.
Bircsak, Edgar Ferdinand; *Kansas City, Mo.*
Brown, Herbert Hull; *Peculiar, Mo.*
Bryan, Lloyd Wolson; Crawford.
Campbell, Clyde Bruce; Lawrence.
Cave, Aubrey Laverne; *Lone Jack, Mo.*
Charles, Homer Herbert; *Warsaw, N. Y.*
Clawson, John Hawthorne; Thayer.
Cochrane, George Leonard; Jarbalo.
Coleman, Don Philip; Leavenworth.
Constant, John Laurence; Lawrence.
Cox, Walter M.; Paola.
Cravens, Rolland Poston; Salina.
Crenshaw, Bransford Wanamaker; *Kansas City, Mo.*
Dance, Mark Granville; Pittsburg.
Dixon, William Joseph; Kansas City.
Edwards, Leon Everett; Topeka.
Esmond, Wilton Lee; *Harvard, Ill.*
Evans, Amanda Elizabeth; Lawrence.
Eyer, Donald B.; Manhattan.
Ferguson, Robert Eugene; Minneapolis.
Freyler, Frank Rudolph; Overland Park.
Frohwerk, David Kent; Kansas City.
Gazin, William Rynard; Topeka.
Goodnow, Frank Weston, Forest Lake.
Graves, Arthur Ashur; Lawrence.
Gray, Carl Arthur; Kirwin.
Harker, Vivian Jewell; *Belton, Mo.*
Havekotte, Carl Elliotte, Lawrence.
Herrington, Harold Wesley; Topeka.
Herthel, Ruth; Claflin.
Hibbs, Russell Robert; Pretty Prairie.
Hill, Wallace McCormick; Wilburton.
Hoagland, Wilbur Wright; Kansas City.
Holderbaum, Earl; Kansas City.

JUNIORS—*Concluded.*

Holmes, Joseph Addison; Hiawatha.
Hoyt, Reginald Hunter; Brockton.
Irwin, John William, Kansas City.
Isern, Elmer Henry; Ellinwood.
Jackson, Paul Samuel; *Kansas City, Mo.*
Janes, Gale McCoy; *Kansas City, Mo.*
Johnson, Arthur St. Clair; *Kansas City, Mo.*
Kell, Waldo Ralph; Lawrence.
Kepple, Herbert; Richmond.
Kerfoot, Raymond Whitney; *Detroit, Mich.*
Keroher, Raymond P.; Lawrence.
Lindell, Vernie Oscar; Pleasanton.
Love, Edwin Kingsley; Lawrence.
Luecke, Carl Leon; *Joplin, Mo.*
Markley, Max C.; Kansas City.
Marshall, Tola Albert; Elkhart.
Mason, Robert Wagner; Lawrence.
Mathews, William LeRoy; *Kansas City, Mo.*
Mesenhimer, Orland Leslie; Lawrence.
Middlekauff, Rose Elizabeth; Rosedale.
Mims, Leonard Hassan, Kansas City.
Miner, Erle Selden; Sabetha.
Mnookin, Nathan M.; *Kansas City, Mo.*
Munch, George Del; Concordia.
Murphy, Fred; Kansas City.
McCauley, Albert Donald; Robinson.
McMillen B. Le Roy; Minneapolis.
McWilliams, Eustace Raymond; Paola.
Nakpil, Juan Felipe; *Manila, P. I.*
Naylor, Howard McDonald; Topeka.
Nelson, Iril; Lawrence.
Newby, Neal Dow; Alden.
Nicholson, Ora Frances; Lawrence.
Olson, Herbert Augustus; Lawrence.
Owen, Toby Allison; Fort Scott.
Paul, Ellis Ellsworth; *Kansas City, Mo.*
Peckham, Jacob Walter; Clay Center.
Peters, Harry Stephen; Minneapolis.
Putney, David Harrison; Leavenworth.
Roberts, Donald Francis; Lawrence.
Rodgers, Charles Harvey; Wa Keeney.
Rupard, Homer; *St. Joseph, Mo.*
Rutledge, Robert Melvin; Topeka.
Saunders, Seymour Gordon; Lawrence.
Schlag, Lloyd Bright; Leavenworth.
Shelton, Edgar Palmer; Independence.
Short, Albert Luther; Leavenworth.
Simmonds, Vern; Lawrence.
Simmonds, Wayne W.; Lawrence.
Smith, Harold Dewey; Haven.
Smith, Howard Vaughn; Burlingame.
Sparklin, Harold Charles; Hiawatha.
Stewart, John Robert; Hutchinson.
Stucker, Harry McCartney; Ottawa.
Sultzaberger, James Adam; Lawrence.
Surtees, Stanley Dwight; Ottawa.
Thomas, Helene Alberta; Lawrence.
Treu, William Little; Eskridge.
Tucker, Louis H.; *Brooklyn, N. Y.*
Turner, Joseph Harold; Howard.
Van Keuren, Catherine; Baldwin.
Van Scoyk, William Vernon; Goodland.
Watson, Robert Winning; Leavenworth.
Webster, Redford Tayer; *Kansas City, Mo.*
Wells, Benjamin Finley; *Kansas City, Mo.*
White, Edwin Lee; Lawrence.
Willhardt, Herbert John; Leavenworth.
Willis, Cecil Custer; Humboldt.
Wolf, Albert Robley; Paola.
Ziesenis, Roy Gus; Lawrence.

SOPHOMORES.

Abbey, Harry Jefferson; Galena.
Ackley, Ernest Lucien; Concordia.
Agcaoili, Vicente; *Philippine Islands.*
Allen, Erroll Warren; Morganville.
Allen, Frederick Rollin; Marysville.
Allen, Luther; Iola.
Anderson, William Benton; Lawrence.
Barron, James Lloyd; Phillipsburg.
Barton, Ross Irvin; Pratt.
Beal, George Malcolm; Topeka.
Bear, Dannie Molnern; Harper.
Beeghly, Floyd J.; *Peculiar, Mo.*
Bennet, Fay Ashley; Topeka.
Bentley, Wayne Hamilton; Great Bend.
Berwick, John Frank; Little River.
Bird, Carl Orrin; Topeka.
Bisset, John Clifford; *York, Neb.*
Bloomgarten, Robert Bernhard; Kansas City.
Bolick, Vance; Independence.
Bond, George Walter; Neosho Rapids.
Bond, Herbert Alison; Lawrence.
Boone, Martin; *Latour, Mo.*
Bowman, Waldo Gleason; Lawrence.
Boyd, Dorolyn; *Colorado Springs, Colo.*
Bradley, Cecil Uel; Greensburg.
Brehm, William Wogan; Hutchinson.
Broady, Jay M., Kincaid.
Brown, Ernest Clyde; Lawrence.
Brown, Francis Henry; *Kansas City, Mo.*
Brown, Kenneth S.; Kansas City.
Brown (Miss) Lael; Lawrence.
Bruner, Charles Francis; Hiawatha.
Buckner, Noel Louis; Wilsey.
Burris, Truman Ball; Conway Springs.
Cambern, Leon J.; Erie.
Cambern, Theodore Jessup; Erie.
Carpenter, Harry Elwood; Mont Ida.
Cathers, Charles Percy; Coffeyville.
Chester, William Trinder; Junction City.
Clardy, Elgin Friesson; *Kansas City, Mo.*
Classen, Ashley Green; La Cygne.
Clawson, William Williams; Lawrence.
Claybaugh, Kelley Wayne; Pretty Prairie.
Coghill, James Tucker; Lawrence.
Conway, Floyd Edward; *Shawnee, Okla.*
Coolidge, Raymond Albert; Lawrence.
Cork, Helen Sarah; Great Bend.
Cornelius, Paul Dean; *Kansas City, Mo.*
Covey, Arnold Burton; Baxter Springs.
Crowder, Waldo Wilson; Lawrence.
Cubbison, Loren Milton; Gardner.
Denny, Frank Wellington; Garden City.
Dietz, Sterling H.; Pratt.
Dillon, Hiatt M.; Lafontaine.
Dowane, Philip Dann; Arkansas City.
Douglass, Clarence; Hannibal.
Drake, Arthur Mendel; Jasper.
Dunham, Cecil Logan; Eureka.
Dunkelberg, Paul Rienzi; *Nardin, Okla.*
Dunkelberger, John Homer; Newton.
Dunkley, Frank; Lawrence.
Elliott, Sam H; Lawrence.
Ely, Harold Devere; Turon.
Endacott, Paul Sidney; Lawrence.
English, John Hubert; Wichita.
Etzenhouser, D. E.; Kansas City.
Fails, Humphrey Milton; Lawrence.
Farrel, Milton Joseph; Dillon.
Fenton, Joseph Michael; Arkansas City.
Filson, George William; Kiowa.
Fisher, Roy Edward; *Kansas City, Mo.*
Fitz Simmons, James Robert; Cunningham.
Freeman, Lillian Evelyn; *Okla. City, Okla.*
Friesen, Ernest Clare; Hutchinson.
Gilbert, Robert Leigh; Lawrence.
Glidden, Horace K.; Lawrence.
Gray, Judson Gordon; Chanute.
Green, Ralph Justice; *St. Joseph, Mo.*
Gregory, Francis; Lawrence.
Gregory, Henry Guy; Alton.

SOPHOMORES—*Concluded.*

Grinter, Linton Eli; Lawrence.
Hagen, Eugene O.; Ellinwood.
Hale, George; Lawrence.
Hall, James Martin; Medicine Lodge.
Harding, William Tulla; Lawrence.
Harlan, Bedford Brooks; *Fort Smith, Ark.*
Harris, Arthur B.; Portland.
Harris, Clarence A.; Horton.
Havenhill, Marshall Asher; Lawrence.
Hawley, George; Hutchinson.
Heason, Loren Stewart; Coffeyville.
Hendren, Robert Fulton; *Tulsa, Okla.*
Herron, Ronald E.; Kansas City.
Hockett, Lloyd Jerry; Wichita.
Hoover, Halbert Hadley; Mound City.
Houk, Clarence Philip; Lawrence.
Howell, William Lewis; Garnett.
Huff, Hubert Walter; Fort Scott.
Huffman, Harold Funston; Havensville.
Hughes, Paul Bernard; Leavenworth.
Hughey, Thomas Myron; Lawrence.
Hunter, Lee Alexander; Garden City.
Hyland, Edward Francis; Baldwin.
Ingham, Winter Cliff; Lecompton.
Ivy, Hyrle Arch; Tescott.
James, Wallace McNeal; Pratt.
Jones, James Ebbert Rule; Medicine Lodge.
Jones; Wilbur M.; Lenexa.
Jones, Wilbur Willard; Neodesha.
Justice, Robert J.; Edna.
Kane, Harry Edward; Parsons.
Kellett, Julian Cleland; *Seneca, Mo.*
Kennedy, Archibald Robert; Winfield.
Kiene, Ralph Eugene; Valencia.
Kimber, Ronald Emmett; Meade.
Kindsvater, Emil Fred; Hoisington.
Kingman, Seth Packard; Topeka.
Kirby, William Books; Blue Mound.
Klooz, Emil; Kincaid.
Kruse, William Charles; *Buffalo, N. Y.*
Kurek, Thaddeus Casimir; Leavenworth.
Lacerte, Wilfred Joseph; Collyer.
Lamb, George William; Piper.
Lamb, Giles Harvey; Yates Center.
Le Suer, James Marvin; Lawrence.
Leverich, Warren Hume; Kansas City.
Lines, Marion Brown; Neodesha.
Loftus, Thomas Burton; Lenexa.
Love, Robert Ezra; *Caviness, Tex.*
Luff, Elvin Kenneth; *Independence, Mo.*
Lyne, Elmer Ward; Miltonvale.
Male, Leonard Herrington; Wakefield.
Manspeaker, Edwin Diehl; Garnett.
Mason, Robert Lucas; Wichita.
Meng, Carl Leroy; Spring Hill.
Miller, Andrew Louis; Jarbalo.
Mills, Neil; Lyons.
More, Roy Charles; Junction City.
McCanles, Eva Josephine; Lawrence.
McKeever, Harold James; Lawrence.
Neville, Homer Forbes; *Kansas City, Mo.*
Newton, William Russell; Lawrence.
Norris, Alva John; *Okeene, Okla.*
Nottingham, Harold Emmett; Lawrence.
O'Leary, Edward Martin; Fredonia.
Orelup, Frank H.; Lawrence.
Orlopp, Oscar Lewis; Topeka.
Osborne, Ralph Homer; Ashland.
Pagett, Harold; Cheney.
Park, Benjamin Paul; White Cloud.
Parkinson, James Arthur; Topeka.
Partridge, Donald Frederick; Delphos.
Pate, Vernon; Esbon.
Patterson, Coy VanCleave; Lawrence.
Patterson, Howard DeVaney; *Kansas City, Mo.*
Petrzilek, Frank Paul; Horton.
Philleo, Edward West; *Oakland, Cal.*
Pimentel, Rufino Paraiso; *Philippine Islands.*
Pontius, Phillip Arthur; Lawrence.
Porth, Wallace Stanley; St. Francis.
Pratt, Abraham; Studley.
Ragle, Paul Thornton; Iola.
Ralston, Wallace; Nortonville.
Reinking, Arthur George; Tescott.
Rinehart, Cleo Adelbert; Lawrence.
Robison, Emmitt Marrill; *Brookfield, Mo.*
Rogers, Carey Dudley; Lawrence.
Roth, Jesse Elmer; *Lamoni, Iowa.*
Saxon, Worth M. Leo; Lawrence.
Schanze, August Edward; Leavenworth.
Schaub, Dwight Frederick; *Muskogee, Okla.*
Schmidt, Henry Gommer; Junction City.
Scott, Richard Peter; Independence.
Sellards, Frank Bolton; Lawrence.
Shane, Henry Kamsler; *Kansas City, Mo.*
Shields, William Hobart; *Mangum, Okla.*
Silliman, Joseph Brock; *Green River, Utah.*
Sinclair, Harold King; Hiawatha.
Sinnard, Melbourne Fredourne; Pleasanton.
Slason, Earle Bernice; Stockton.
Smith, Cecil Adams; Elkhart.
Smith, Elden Bredges; Hutchinson.
Sproul, William Maynard; Sedan.
Stelzer, John Irving; Lawrence.
Stevenson, Burton James; Lawrence.
Stevenson, Charles Page; Oberlin.
Strahm, Allen David; Lawrence.
Strahm, Warren Knight; Lawrence.
Swarner, William Ernest; Rosedale.
Sweeney, Edward J.; Ozawkie.
Sweeney, Hubert Lea; Augusta.
Tann, William Howard; Kansas City.
Tatum, Richard Edwin; Lawrence.
Taylor, James Orion; Topeka.
Taylor, Leonard Hale; *Kansas City, Mo.*
Testerman, Roy Elza; Lawrence.
Thorne, Francis Xavier; Leavenworth.
Threlfall, James Joseph; Wichita.
Troughton, Thomas; Seneca.
VanHoesen, George G.; Baldwin.
Vaughn, Everett Johnson; *Dewey, Okla.*
Vawter, Fane Floyd; Cherryvale.
Ver, Ramon Quevedo; Lawrence.
Wall, Glenn Burdick; Lawrence.
Warrell, Walter Henderson; *Kan. City, Mo.*
Warren, Karl Brocton; Girard.
Weidman, Harry Peter; Wichita.
Wendling, Glen Harold; Arlington.
Wenzel, John Herman; Enterprise.
Widmer, Henry Carl; Parsons.
Wilkins, Harry; Chapman.
Wilkinson, Xellis H.; Kingman.
Williams, John Willie; *Paris, Tex.*
Wilshire, Leslie Maynard; Rossville.
Wing, Ralph Edwin; Benedict.
Wingate, Charles Ray; Varner.
Wise, Edwin Charles; ————.
Woodward, Marvin Willard; Olathe.
Young, Lloyd Morse; Iola.

FRESHMEN.

Adams, William Solomon; Potter.
Ainsworth, Alfred; Wichita.
Allen, Devere Frank; *Kansas City, Mo.*
Allison, Ellis J.; Chanute.
Allison, Junior; Lawrence.
Anderson, Karl Jalmar; Ottawa.
Applegate, Leo; Lawrence.
Asbury, Harry LeRoy; Lawrence.
Austin, Merrill Theodore; Mullinville.
Bauman, Robert Doyle; Wellington.
Berry, Harry Lawrence; Mankato.
Bock, John Anthony; Goodland.
Bondurant, Earl Haden; Ness City.
Branaman, Hugh A.; Ottawa.
Breakey, Edward Paul; Burlington.
Bredine, Edwin Rudolph; Mound Valley.
Brintnall, Edwin Loren; Bonner Springs.
Brotherson, Lewis Hanson; Kansas City.
Burgener, Leo Ira; Newton.
Butcher, Homer Rawlins; Marion.
Butler, Paul Lincoln; Erie.
Carlson, Everett Emanuel; Chanute.
Carr, John Roland; Basehor.
Chapin, Cecil Curtiss; Lyons.
Cheatum, Clyde R.; Cheney.
Clarke, Thomas Moore; Lawrence.
Compton, James Howard; Bonner Springs.
Cook, Robert Lee; Kansas City.
Coolidge, Warren Algernon; Lawrence.
Corel, James Glenn; Lawrence.
Corman, Emmett Jonas; Kansas City.
Cote, Raymond; Weir.
Crews, Charles Manassah; Topeka.
Cullum, Ward Richard; Garnett.
Cunningham, William Buckner; *Kansas City, Mo.*
Davis, Donald C.; Lyons.
Davis, Ernest Raymond; Bavaria.
DeTar, Curtis Andrew; Wellsville.
DeVore, Carl William; Parsons.
Dodd, Carlton Ellsworth; Lafontaine.
Dodd, Wendell T.; Langdon.
Dowd, Benjamin Norton; Wichita.
Drybread, McKinley; Independence.
Duffie, Mitchell Carl; *Hamilton, Mo.*
Dungan, Richard Melburn; *Kansas City, Mo.*
Duty, Wayne Martin; Garnett.
Duval, Ralph John; Kansas City.
Eaton, Leonard Ralph; Neodesha.
Eaton, Manford Leslie; Gardner.
Ecord, Kenneth Edwin; Toronto.
Eidson, Alva; Liberal.
Eidson, William Marshall; Liberal.
Ellson, Ralph Emmerson; Muscotah.
Engel, Oscar Erwin; Hope.
Etzenhouser, Alfred Lester; *Independence, Mo.*
Farmer, Louis Marion; Pratt.
Farrar, Walter Batteal; *Kansas City, Mo.*
Fitzmorris, Morris Walter, Fall River.
Flores, Jose Pangalitingan; Lawrence.
Fortney, Ralph Bertus; Clyde.
Foster, Archie Lee; Cherryvale.
Foster, Richard Bruce; *Franklin, Pa.*
Fowler, Alfred DeForest; Lawrence.
Franklin, Harold Moor; Kansas City.
Frederick, Carl Guy; Bonner Springs.
Freese, Clyde Harrold; Lawrence.
Freshman, Myer; Parsons.
Fritts, Harold Milton; Beverly.
Fuller, Robert Paul; Wichita.
Gale, Samuel Hawes; Benton.
Gane, Herbert; Brookville.
Gaston, Dewey George; Erie.
Geery, Gilbert Lorraine; Iola.
Gentry, Gale Raymond; *Merwin, Mo.*
Gerner, George Leonard; Rosedale.
Glaskin, George VanKirk; *Kansas City, Mo.*
Goodell, Clair Nichol; Independence.
Gordinier, Virgil Francis; Pratt.
Gordon, Frank Donald; Lawrence.
Griffin, Robert Edward; Hutchinson.
Hackney, Roger; Wellington.
Haggart, Robert Alexander; Lawrence.
Hamacher, Glenn Lee; Robinson.
Hand, Miriam Estelle; Topeka.
Hansen, Maude Caroline; Lawrence.
Harlan, Glenn Leon; *Webb City, Mo.*
Harrison, Paul Leonard; Lawrence.
Hartig, Otto Joseph; Lawrence.
Hatten, William Jacob; Westphalia.
Heckert, William Paul; *Kansas City, Mo.*
Hefling, Arthur William; Burrton.
Henderson, Arthur Martin; Lawrence.
Henninger, Carl Marion; Jewell City.
Henson, Ralph Dennis; Lawrence.
Hester, John Stephen; *Demorest, Ga.*
Hetzel, Park; Lawrence.
Hicks, Theron Wright; Norton.
Hildreth, Lane Warner; *Kansas City, Mo.*
Hill, Marvin Leon; Benton.
Hinch, Richard Lee; Kansas City.
Hitchcock, Claude Adrian; Kansas City.
Hodges, Francis Van Dyke; *Kansas City, Mo.*
Hoffman, Ralph Russell; Neodesha.
Hohner, Carl David; St. John.
Hohner, Leonard Fenton; St. John.
Holiday, Ralph Milton; *Carthage, Mo.*
Hillingbery, George Phillips; Lawrence.
Horsman, Raymond J.; Mt. Hope.
Howard, Hubert Lindsay; Topeka.
Howe, John Clark; *Oronogo, Mo.*
Howe, Orrin K.; Lawrence.
Howerton, Charles Ross; Argonia.
Huhn, William Herman; Leavenworth.
Hyre, Marvin Charles; Lawrence.
Icenhower, Emery Albert; Lawrence.
Inovio, Pable Regularis; Lawrence.
Jensen, Bert Philip; Baxter Springs.
Johnson, Paul Augusta; Winchester.
Johnston, Earl Norton; Topeka.
Jones, L. Arthur; Lenexa.
Junker, John Herman; Kansas City.
Kaiser, Max Elliott; Ottawa.
Keesee, Gerald Bruce; Topeka.
Kellerman, Alphon Wayne; *Raton, N. Mex.*
Kennedy, James H.; Holcomb.
Kepler, Reginald Eugene; Lawrence.
Kesler, Chas. Daniel; Edna.
King, Ralph Marsh; Dighton.
Kingman, Lewis; Topeka.
Korb, Martin Frank; Lawrence.
Kraybill, LeRoy; Eudora.
Kreger, Scott Wilson; Wakefield.
Kuebler, Roland Bryan; Pomona.
Larkin, Willard Ray; Haviland.
Learned, S. Stanley; Lawrence.
Lee, Harry Sunn; *Kansas City, Mo.*
Light, John Sayre; Winfield.
Long, Arthur C.; Mound City.
Lucas, Rex; Dearing.
Lumasag, Edilberto Rillas; *Philippine Islands.*
Lyons, James Franklin; Lawrence.
Mather, Roland Emey; Centralia.
Matson, Dewey Hale; *South Whitley, Ind.*
Means, Donald Geyer; Wetmore.
Meyer, James Lawrence; *Springfield, Mo.*
Miller, Bertram; Wichita.
Miller, Horace Larimer; Iola.
Miller, William George; Atchison.
Miner, Ralph Chapin; Sabetha.
Moore, Malcolm Crenshaw; *Rensselaer, Mo.*
More, Alva Benjamin; Junction City.
Morris, Rael Fisher, Oswego.
McAferty, James Floyd; Lawrence.

FRESHMEN—*Concluded.*

McCauley, Marcy LaMar; Leona.
McLeod, William Sorber; *Kansas City, Mo.*
McRill, Edgar; Tonganoxie.
Nelson, C. Hollis; Lawrence.
Nelson, Richard Ralph; Belle Plaine.
Nichols, Ralph Westley; Pawnee Rock.
Nivens, Frank Robert; *Kansas City, Mo.*
Nonken. Wesley M.; Peabody.
Northrop, John Leonard; Basehor.
Ohley, Verne Ray; Byers.
Opperman, John Balthagar; Baxter Springs.
Overturf, Harold Horton; Bird City.
Paddock, John Alben; Thayer.
Pagett, Glenn M.; Cheney.
Pardee; Albert; Lawrence.
Park, Dean V.; Olathe.
Patterson, Tyler Charles; Girard.
Patton, Lane; Newton.
Pearce, Leo John; Gardner.
Peterson, Amos Lenard; Marquette.
Peterson, Arthur; Climax.
Peterson, Claude Meredith; Wellington.
Pigg, James Franklin; Bonner Springs.
Quackenbush, Landon Otho; *Irwin, Mo.*
Quiett, William Eaby; Ozawkie.
Radotinsky, Joseph William; Kansas City.
Randall, Richard Bryant; Lawrence.
Ranus, Don H.; Leavenworth.
Rau, Gus Fredric; *Kansas City, Mo.*
Reeves, Franklin Benjamin; Dodge City.
Reeves, Robert Charles; Dodge City.
Reeves, Ted Frank; Beeler.
Reinken, Herman D.; Coffeyville.
Reynes, Benjamin Mercado; Lawrence.
Reynolds, Matamore Beverly; *Springer, N. Mex.*
Robey, Frank A.; *Holden, Mo.*
Ross, Harold Joe M.; Kansas City.
Russell, Ray Cecil; Soldier.
Ryan, Joseph B.; Kansas City.
Sales, Addison Chester; *Tecumseh, Okla.*
Sanders, Robert Duncan; Kansas City.
Sarmiento, Luis Quizon; Lawrence.
Savage, Paul Hyde; Leavenworth.
Scafe, Dennis Verne; *Joplin, Mo.*
Schonwald, Harold; *Blackwell, Okla.*
Schwinley, Keith Eugene; Lawrence.
Scott, Jay Dewey; Hutchinson.
Scott, Paul Dean; *Irving Park, Ill.*
Sharpe, Robert Quentin; Neodesha.
Sheridan, Stephen W.; Paola.
Shimek, Ted; *Cuba.*
Shuler, Paul Henry; Lawrence.
Shultise, Quido Mules; Wichita.
Simons, Verne Franklin; Howard.
Slaughter, Robert Fields; Tonganoxie.
Smeltzer, Vivian Orth; Dighton.
Smith, Earl Gardner; El Dorado.
Smith, Marsh Edward; *Kansas City, Mo.*
Smith, Verner Fawcett; Hutchinson.
Snart, Fred Glann; Grinnell.
Snyder, Rudolph; Wichita.
Sollesa, Fabian Penamora; Lawrence.
Sorey, M. Lee, jr.; Lawrence.
Sparks, Harold B.; Macksville.
Sparks, James Leslie; Lawrence.
Sprong, Wilbur LaVerne; Oak Mills.
Stacey, Maro Hunting; Leavenworth.
Stagg, James Ralph; Kirwin.
Stark, John Bugbe; Bonner Springs.
Steele, John Clarence; Bird City.
Stephens, Carl Millard; Joplin.
Stewart, Jack Clyde; Alta Vista.
Stover, Clyde Ansel; Bethel.
Stricklan, Clarence John; Coffeyville.
Strickland, John Francis; *Alva, Okla.*
Strobel, Vernon Roy; Garfield.
Stugard, Jerry; Lawrence.
Talcott, Montgomery Nease; Hutchinson.
Tate, Cecil Alan; Lakin.
Taylor, Marshall Elmer; Overland Park.
Terry, Gifford Van Dalsen; Merriam.
Thompson, Edward Bills; Kansas City.
Thompson, Todd Stewart; Marysville.
Thornburg, Carl William; Easton.
Tribble, Scott R.; Circleville.
Tucker, Clyde; Pleasanton.
Waite, Harold A.; Argentine.
Walker, Wallace Robert; El Dorado.
Watkins, Roy Oliver; Chanute.
White, Elmo M.; Tonganoxie.
White, James Bradford; Turon.
Wilbur, Geo. Burton Eldon; Williamstown.
Wilson, Carl Amos; Lawrence.
Woodburn, Joel Tinder; Parsons.
Woodcock, Randall Walton; Hugoton.
Workman, Marvin Hart; Smith Center.
Wyatt, Ralph Edmond; McLouth.
Wyatt, Wayne Truskett; Independence.
Wynn, Warren Herschel; Lawrence.

SPECIALS.

*Abrams, Louis J.; Lawrence.
*Andrews, George L.; *Los Angeles, Cal.*
*Barnett, Walter; *Des Moines, Iowa.*
*Bernard, Clarence; Lawrence.
*Block, Clarence; Moundridge.
*Bloomer, J. B.; Claflin.
*Boone, John H. H.; Hutchinson.
*Boyle, Walter J.; Bennington.
Boyles, Glen Harold; Emporia.
*Brown, Merritt; Lawrence.
Bunn, Harry Ray; *Harrisonville, Mo.*
*Carlin, Hugh; Salina.
Cavaness, Charles Monroe; *Kansas City, Mo.*
Christine, Louis; Argentine.
*Davis, Kenneth A.; Morganville.
*Day, Willard; Abilene.
*Dietrich, Harold; Ottawa.
*Dillenbeck, Lloyd; El Dorado.
Eagan, Kyran William; Lawrence.
*Earlenbaugh, Lawrence; Claflin.
*Evans, Ralph W.; Leavenworth.
*Evarts, Ralph E.; Arlington.
*Ferguson, Samuel H.; Atchison.
Fisher, George Neil; Leavenworth.
*Fridell, Myrtel L.; Robinson.
Glahn, Eugene; Lawrence.
*Glenn, Erwin; Sedan.
Greenwood, Gilbert Gordons; Lawrence.
*Gross, Peter; Lawrence.
*Harrington, Roscoe; Augusta.
*Hart, George M.; Lawrence.
*Hayden, James R.; Lawrence.
*Johnson, Vansel S.; Valley Falls.
*Kiefer, Everett; Lawrence.
*Logan, Albert; Lebanon.
*MacDaniels, Reba G.; Kansas City.
*Madden, Leo; Effingham.
*Maddox, Albert; Rosedale.
*Mandeville, Frank; Kingman.
*Marble, Alexander; Troy.
*Marshall, Earl E.; Elk City.
*Mather, Edward; Centralia.
*Meeker, Bruce; Wichita.

* Enrolled in some other school of the University.

SPECIALS—*Concluded.*

*Moore, Victor; Lawrence.
*Mowrer, Loren; Lost Springs.
*Myers, Francis C.; Junction City.
McAdams, Carl A.; Lawrence.
*McCoy, Alvin S.; Dodge City.
*McGee, Philip; Lawrence.
*Nelson, Morton; Lawrence.
*Old, John B.; Parsons.
Pailen, John Edward; Garrison.
*Pate, Vernon; Topeka.
Peters, Charles Mallory; Paola.
*Pommerenke, Wesley; Clay Center.
*Pringle, Roy D.; Harveyville.
*Ridgeway, Bertrand S.; Lawrence.
*Scholl, Jack; Dodge City.
*Schoonover, John; Lyons.
*Schwartz, Joe; Lawrence.
*Shore, Edward H.; Kansas City.
*Slane, Nimon; Parsons.
*Spencer, Ray P.; Lawrence.
*Sterling, John A.; Lawrence.
*Stout, Forrest D.; Medicine Lodge.
*Sturgeon, Martel J.; Lawrence.
Sudsberry, Marvin Luther; Fort Scott.
*Uhrlaub, Ernest; Lawrence.
Walford, Roy Lee; Iola.
*Wilcox, Arthur L.; Topeka.
*Wilcox, Fred J.; Lawrence.
*Wilkinson, Vernon A.; Kansas City.
*Wyatt, Wiley J.; Lawrence.
*Young, Ray R.; Lawrence.

* Enrolled in some other school of the University.

SCHOOL OF FINE ARTS.

SENIORS.

Batchellor, Norma; Lawrence.
Constant, Olive Jane; Lawrence.
Fulks, Josephine; Turon.
Gleed, Joanna; Topeka.
Hale, Thelma Belle; Yates Center.
Hargett, Marion; Lawrence.
Jackman, Laura Susie; Wichita.
Kell, Helen Hilman; *Muskogee, Okla.*
O'Brien, Elizabeth Delmarr; Lawrence.
Seitz, Bessie Louisa; *Syracuse, N. Y.*
Shafer, Josephine; Lawrence.
Summers, Myra Cochran; Lawrence.
Weed, Helen Irene; Lawrence.

JUNIORS.

Coffelt, Golda William; Blue Mound.
Cox, Nadine; Lawrence.
Doerr, Pauline Late; Larned.
Ellenberger, Deloras Rebecca; El Dorado.
Haskin, Helen Dolores; Harper.
Hilkey, Edna Marie; Lawrence.
Hill, Aeo; Neodesha.
Hyre, Mabel Edith; Lawrence.
Kirby, Lena Rue; *Independence, Mo.*
Kohler, Bula Ella; La Harpe.
Mount, Julia Elizabeth; *Pueblo, Colo.*
Pouliot, Adrian St. Laurent; Damar.
Semon, John Frederic; Lawrence.
Van Zandt, Meda Jessie; Hutchinson.

SOPHOMORES.

Altman, Josephine; Kansas City.
Anderson, Mabel; Vesper.
Atwood, Marguerite; Caney.
Barnes, Gladys; Barnes.
Binney, Sarah Ann W.; Strawn.
Brophy, Athol; *Kansas City, Mo.*
Burkhalter, Elizabeth Dora; White Cloud.
Burnam, Lura Vivian; Oskaloosa.
Carlton, Luther Findley; Garden City.
Chapman, Doris; Conway Springs.
Claggett, Gladys Dola; Atchison.
Clark, Amy B.; Mankato.
Crump, Leah Emma; Kansas City.
Denver, Evilo I.; Tonganoxie.
Dickson, Jack Stewart; Lawrence.
Dugger, Hazel; Lewis.
Ellenberger; Glenda Quintilla; El Dorado.
Fisher, Marguerita; Caney.
Fitzgerald, Gladys; Kansas City.
Gage, Dorothy; Minneapolis.
Garlinghouse, Marjorie Pearl; Iola.
Garner, Esther Marie; Haviland.
Gatewood, Alexander Enrico; Kansas City.
Gwyn, Mary Jean; Waverly.
Hait, Josephine; Leavenworth.
Hart, Edwinna Marie; Macksville.
Harte, Klonda Flo; Cunningham.
Hershberger, Crystal Lucile; Greensburg.
Idol, Louise Jane; Robinson.
Johannes, Georgia Marion; *Lamar, Mo.*
King, Etta Marie; *Shawnee, Okla.*
Kline, Roy Preston; Morland.
Larkin, Katherine; *East Las Vegas, N. Mex.*
Lee, Eva May; Yates Center.
Lightner, Verna Elaine; Mound City.
Lynn, Hazel Eugene; Lawrence.
Marshall, Velma Adaline; *Kansas City, Mo.*
Moody, Mary Alexander; Girard.
McLaughlin, Louise Ellis; Greensburg.
McMullen, Elva Barbara; Great Bend.
McNary, Mabel Ruth; Garnett.
Neely, Vera Marie; Lawrence.
Nelson, Gladys Helen; Lawrence.
Nelson, Loraine; Lawrence.
Palmer, Madge Nazelle; Greeley.
Patterson, Doris Kathryn; Lawrence.
Pool, Maeryta Daniel; *Mt. Vernon, Ill.*
Prewett, Grace Mabel; Asherville.
Pumphrey, Essie Bee; *Fort Worth, Tex.*
Reule, Vivian; Kansas City.
Riley, Frances; Soldier.
Robinson, Mary Bernadette; Potter.
Sacher, Ruth Helen; Holton.
Schmidt, Velma Allene; *Kansas City, Mo.*
Schreiber, Edwin; Atchison.
Shipley, Zada Elda; Neodesha.
Simpson, Guy Criss; Atchison.
Spotts, Ruth Mildred; Lawrence.
Stephens, Isabel W.; Atchison.
Stevens, Rachel; Lawrence.
Watson, Katie Belle; Vining.
White, Bonnie May; *Tonkawa, Okla.*
White, Reba Pauline; Neodesha.
Williams, Ruth Lucille; Preston.

FRESHMEN.

Abell, Donald Roswell; Riley.
Agee, Ruth; Troy.
Alexander, Kenneth Beach; Kansas City.
Anderson, Martha A.; Vesper.
Anderson, Pearl Camille; Vesper.
Arnold, Grace; Lawrence.
Ayres, Helen M.; *Pekin, Ill.*
Biven, Arrah Leon; Erie.
Bradley, Katherine Louise; *Peoria, Ill.*
Brandimore, Marianne Virginia; Kansas City.
Brice, Mildred; Cimarron.
Brodie, John; *Des Moines, Iowa.*
Brown, Pauline Agnes; Lawrence.
Brown, Robert Edgar, jr.; Kansas City.
Campbell, Mary Jeanne; Meade.

FRESHMEN—*Concluded.*

Carlton, Marjorie Hildreth; Garden City.
Cavanaugh, Dorothea; Dighton.
Charvat, Alice Louisa; Phillipsburg.
Christopher, Velma; *Holly, Colo.*
Clark, Merle; Coffeyville.
Clem, Irene; Chanute.
Cody, Nina Ellan; Clay Center.
Craig, Dorothy Jean; Osage City.
Davidson, Isabelle Evans; *Virden, Ill.*
Dedrick, Winifred Lee; Lawrence.
DePew, Phyllis; Howard.
Doerr, Laura Isabel; Larned.
Dyer, Erma Electa; Lincoln Center.
Ellfeldt, Helen Mary; *Kansas City, Mo.*
Ellington, Princess Allene; Lawrence.
Emley, Lalage Hall; Lawrence.
Finerty, Miriam Louisa; *Okla. City, Okla.*
Foltz, Elda; Belle Plaine.
Forney, Elsie Anna; Lawrence.
Fowler, Edna Mae; Lawrence.
Fowler, Mildred Helen; *Kansas City, Mo.*
Frater, Marjory; Fredonia.
Gibson, Clara Glenn; Wa Keeney.
Goldsby, Katherine Frances; *Kan. City, Mo.*
Gordon, Zelma; *Straw, Mont.*
Gould, Ruth Annie; Wilroads.
Green, Ruth Esther; Kiowa.
Hackney, Saloma Eleanore; Lawrence.
Hanna, Mary Marca; Courtland.
Harris, Alberta Susie; Lawrence.
Haynes, Georgia R.; Parsons.
Henderson, Clyda; Phillipsburg.
Hill, Bertha Louise; Lawrence.
Hill, Ruth A.; *Granite City, Ill.*
Horsey, Edward Thompson; Kansas City.
Huenergardt, Francis; Marion.
Hunter, Mary B.; *Kansas City, Mo.*
Hutchins, Inez Djack; Topeka.
Jameson, Elsie Dean; Abilene.
Jensen, Marne Marie; Emporia.
Johnson, Cleta Gazelle; Lawrence.
Jones, Sarah Jane; Hutchinson.
Judy, June Lucille; Lawrence.
Kerr, Elizabeth Austin; *Kansas City, Mo.*
Koontz, Fern; Columbus.
LaSure, Mildred Pearle; Russell.
Laughlin, Irma J.; Lawrence.
Lawson, Ilda Gentry; *Nowata, Okla.*
Magill, Lucile Grace; *Holdrege, Neb.*
Malone, Catherine Elizabeth; Caldwell.
Means, Nellie; *Kansas City, Mo.*
Miller, Earl Moode; Burr Oak.
Moore, Gladys Catherine; Lawrence.
McKenzie, Howard Neely; Lawrence.
O'Brien, Katherine Elizabeth; Norton.
Patterson, Marian Almire; Abilene.
Patterson, Marjorie; Harper.
Peabody, Irene; *Springfield, Mo.*
Riordan, Maude Frances; Solomon.
Ryan, Leona; Garden City.
Ryan, Mary Ellen; Lincoln.
Sapp, John Browning; *Jasper, Mo.*
Schreiber, Isabel; Atchison.
Schupp, Claud Irving; Garnett.
Seaman, Mildred Irene; Lawrence.
Senior, Marguerite Honore; Waverly.
Soeken, Lena; Claflin.
Speck, Clara Marie; Nortonville.
Steele, Dorothy; *Kansas City, Mo.*
Stowers, Virginia Josephine; Kansas City.
Strong, Ruth; Lawrence.
Tapper, Twila Marie; Goodland.
Tirrill, Lucien Eugene; Topeka.
Troup, Lilian Margaret; Concordia.
Tucker, Ramona N.; Lawrence.
Whitcraft, Enterprise Lola; *Kan. City, Mo.*
Wolters, Helena Johanna; *Kansas City, Mo.*

SPECIALS.

*Abbott, Joseph; *Manitou, Colo.*
*Abrams, Beatrice; Lawrence.
Ackerman, Bernice deNevan; Lawrence.
*Amos, Mary L.; Humboldt.
Apple, Gladys Myrtle; Lawrence.
Armstrong, Mary Frances; Leavenworth.
Arndt; Marcella Hetzel; Lawrence.
*Arnold, Eva; Edna.
Babb, Marian; Fredonia.
*Baumgartner, Leona; Lawrence.
Bell, Katherine Elizabeth; Cottonwood Falls.
Bender, Vere William; Parsons.
*Bendit, Louis C.; *Kansas City, Mo.*
*Bennett, J. L.; Iola.
*Bennett, Yula; Hoisington.
*Biresak, Edgar F.; Kansas City.
*Bishop, Melvin; Lawrence.
*Blackburn, Glessie; Stafford.
Blankenbeker, William Leland; Olathe.
*Blymn, Ralph; Fredonia.
*Bock, John A.; Goodland.
Bocook, Opal Florence; Bazaar.
*Boggs, Dean; Wichita.
*Bolinger, Margaret; Great Bend.
*Bouska, Luther; Narka.
*Bowman, Mrs. Earl; Lawrence.
*Brown, Esther; Lawrence.
*Buck, Houghton; Topeka.
Buck, Sadie Marie; Lawrence.
*Buckle; Fae; Stafford.
Bussing, Grace Eleanor; Topeka.
Calvin, Verne Jackson; Boicourt.
*Campbell, Catharine; Lakin.
*Campbell, Gladys K.; Lawrence.
Campbell, Harriet Marie; Lawrence.
Campbell, Laura Eveleen; Lawrence.
*Campbell, Mabel; Lawrence.
*Campbell, Moscelene; Hutchinson.
*Carder, Leone; Lawrence.
Carder, Lorane Louise; Lawrence.
*Carney, Alice; Concordia.
*Carter, Ruth; Lawrence.
*Chase, Mary; Lawrence.
*Clark, Ethel C.; Lawrence.
*Clark, Mildred; Lawrence.
*Clouse, Ruth; Cunningham.
Comstock, Elizabeth M.; Lawrence.
*Cox, Orlis; Elk City.
*Cronk, Seymour; Lawrence.
Daniels, Edna Ellen; Lawrence.
*Darby, Herbert; Lawrence.
*Darby, Philip; Garden City.
Davidson, Dalton; Salina.
*Davis, Glenn; *Muskogee, Okla.*
DeWoody, Lucille Donna; Lawrence.
*Dick, Ethel; Lawrence.
Diver, Dorothy E.; Neosho Falls.
*Docking, Alice; Lawrence.
*Donmeyer, Bernice; Salina.
*Drake, A. M.; *Jasper, Mo.*
*Durall, Bertha; Chanute.
*Dworkovitz, Joseph; Benton.
*Eggleston, Hiram; Lawrence.
Eikenberry, Florence Shaw; Lawrence.
Elder, Rosamond Hazel; Redfield.
Elliott, Altyn Howard; Princeton.
Elsey, Elizabeth; Lawrence.
*Farmer, Louis; Pratt.
*Flater, Ruth; Kansas City.

* Enrolled in some other school of the University.

SPECIALS—*Concluded.*

Fogelman, Ruth Corrine; Chanute.
*Foster, Richard; *Franklin, Pa.*
*Foster, Thomas; Argonia.
*Francis, Georgia; Cherryvale.
*Frisbie, Elsie; *Kansas City, Mo.*
Gaumer, Lucile Virdilla; Lawrence.
Gebhards, Inez; *Chandlerville, Ill.*
Gillum, Mrs. Ferne; Lawrence.
*Girard, Edward; Windom.
*Goodner, Kenneth; Baxter Springs.
*Goss, Patsy; *Pawhuska, Okla.*
*Grauer, Lisle; Topeka.
*Greason, Bernard; *Holt, Mo.*
*Gossman, Jerome; Kansas City.
*Groves, Frances; Greensburg.
*Hackney, W. D.; Lawrence.
Hale, Helen Rogers; Lawrence.
*Hall, Martin; Medicine Lodge.
*Hamilton, George; Topeka.
*Hamilton, Mary H.; Kansas City.
Hamm, Thora Esther; Lawrence.
*Hanna, Lois; Clay Center.
*Harding, Orpha; Lawrence.
*Harkrader, Caroline; Pratt.
*Harris, Kathryn; Princeton.
*Hawley, George; Hutchinson.
Hayes, Edna Ruth; Washington.
*Hays, Mary; Belleville.
Helmick, Dora; Lawrence.
Henderson, Eva Scottie Bernice; Salina.
*Hoffman, Paul D.; Abilene.
Holiday, Lua Rachel; Lawrence.
*Hood, Kathleen; Greenleaf.
*Horseman, R. J.; Mt. Hope.
*Horton, Dortha; Goodland.
Hough, Laura M.; Wetmore.
*Huff, Bonnie; Preston.
*Hughey, Myron; Lawrence.
Hull, Myra Elsa; Lawrence.
Humble, Mrs. Ethel Ruth; Lawrence.
Hungerford, Frances; Lawrence.
*Husband, Wilfred; McPherson.
Husted, Lottie Marie; Lawrence.
*Jones, Marie E.; Council Grove.
Keener, Helen Lenora; *Dalhart, Tex.*
Keister, Mary Claudine; Tonganoxie.
Kelsey, Claude Gerhardt; *Kansas City, Mo.*
*Knapp, Leslie; Arkansas City.
*Kohl, Hugo; Hays.
*Lacy, Blanche; Anthony.
*Lambert, W. P.; Leavenworth.
*Larkin, Margaret; Lawrence.
*Lavery, Euthalia; *Kansas City, Mo.*
*Lenington, George; Beattie.
*Liggett, Harry; Tribune.
*Light, Dethe; Winona.
Mackie, Elizabeth C.; Lawrence.
*MacMurray, Cooper; Lawrence.
*Mahaney, Harold; Augusta.
*Malott, Dean; Abilene.
Manson, Donald Richard; Arlington.
*Martin, Alice Doris; *Chicago, Ill.*
Meader, Mariam Elizabeth; Lawrence.
*Mehrten, Grace; Lawrence.
*Meinke, Herbert C.; Linwood.
Merrill, Emma E.; Lawrence.
Miller, Juanita Adalia; Lawrence.
*Miller, Kenneth C.; Wathena.
*Miller, Lenore; Garden City.
Monroe, Hattie Louise; *Glacier Park, Mont.*
*Moore, Winifred; Galena.
Morrison, Ruthiejane; Lawrence.
*Munch, Dorothy; Concordia.
McChesney, Marian; Clay Center.
*McCoy, Mabel; Wilson.
McDougal, Golda Floy; Lawrence.
*McGuire, Grace; Meade.
*McLatchey, Nina; Topeka.
*Neely, Helen; Lawrence.
*Nelson, Dorothy; *Kansas City, Mo.*
Newton, Harriet Ann; Chetopa.
*Noble, Isabel; Abilene.
Nungesser, Ella; Lawrence.
O'Dowd, Katherine; Newton.
*Oldham, Sam; Mulberry.
*Paine, Leta; Admire.
Parisa, Eva E.; Lawrence.
Parisa, Florence R.; Lawrence.
*Parsons, Ora; Dodge City.
Payne, Mrs. Rex; Hutchinson.
Pearson, Lydia Christin; Courtland.
Peck, Mrs. Mora Moreland; *Kansas City, Mo.*
Perkins, Mrs. Edwinna Reed; Lawrence.
*Phillips, Louise; Lawrence.
*Pospisil, Matilda; Wilson.
*Popisil, Philomena; Wilson.
*Pratt, Ines M.; Vinland.
*Pugh, Clifford; Junction City.
*Purkaple, Evelyn; Neodesha.
Rayhill, Martha; *Warrensburg, Mo.*
*Reagan, Maurine; *Clovis, N. Mex.*
*Reb, James; Blue Rapids.
*Regier, Emil; Moundridge.
*Reitzel, Delia; Waterville.
Reynolds, Cora; Lawrence.
Robinson, Frances Clare; Lawrence.
*Royer, Beula A.; Gove.
*Rubert, Horace G.; Courtland.
Rudolph, Mrs. Rose Viola; Lawrence.
*Rundus, Phillip; Topeka.
Sample, Hilma Tate; *Oakville, Iowa.*
*Sangster, Belva; Lyons.
Schick, Fern; Lawrence.
Sehon, Helen; Lecompton.
*Seymour, Kathleen; Mound City.
*Sharpless, Lois; Atchison.
Shinn, Frances Susan Ingalls; *Birmingham, Pa.*
*Shores, Belva; Burr Oak.
*Shores, Harold; Burr Oak.
Shortridge, Annie Lawrie; *Dearborn, Mo.*
Skilton, Helen; Lawrence.
Smalley, Eloda; Oswego.
*Soldani, Rose M.; *Ponca City, Okla.*
*Stanley, Constance; Lawrence.
Stark, Mabel Ijains (Mrs.); Lawrence.
*Stoddard, Thelma; Lawrence.
*Stokes, Harold; *Vinita, Okla.*
Stouffer, Anna Lucile; Lawrence.
*Strobel, Vernon; Garfield.
Stryker, Mary Seymour; *La Grange, Ill.*
Stuart, Katherine Jane; Lawrence.
Stugard, Burl; Lawrence.
*Taylor, Agnes; Hutchinson.
*Tenney, Clifford; Lawrence.
Thomas, Bertha Mae; Lawrence.
Thomas, Elizabeth Augusta; *Springfield, Mo.*
*Thomas, Helene; Lawrence.
*Thompson, M. H.; Lawrence.
*Throckmorton, Mary; Columbus.
Trumble, Helen Amelia; Lawrence.
Uhl, Helen Laura; Tonganoxie.
Underwood, Edna; Lawrence.
*Vickrey, Marguerite; Lawrence.
*Wahlstedt, John; Lawrence.
Waitt, George H.; Wichita.
*Wakenhut, Juliett; Salina.
*Wanamaker, Elnora; Blue Rapids.
*Warren, Frances; *Muskogee, Okla.*
Weed, Blanche; Lawrence.
Weed, Sarah Elizabeth; Lawrence.
*Welch, Lena; Fort Scott.
*Winship, Ruth; Syracuse.
Woolfolk, Emma Gertrude; Topeka.
Woolworth, Rose Gracia; Lawrence.

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* Enrolled in some other school of the University.

SCHOOL OF LAW.

SENIORS.

Adair, Ruth May; Lawrence.
Bailey, Clarence Emmitt; *Romona, Okla.*
Banker, Glenn Victor; Russell.
Bauman, Edwin Rudolph; Wellington.
Benton, Williard Merriam; Kansas City.
Blake, Harold Loure; Wichita.
Carper, Charles Clay; Lawrence.
Colter, Lloyd Clarence; Chetopa.
Davidson, William McKinley; St. John.
Duff, Louis Dunlap; Horton.
Etling, John August; Belpre.
Evans, Carlos William; Tonganoxie.
Evans, Wade Hampton; Wa Keeney.
Flagg, Donald Sergeant; Lawrence.
Fulton, Hamilton R.; Sabetha.
Goodwin, Harold Wilford; Woodston.
Gorrill, Clarence Marshall; Lawrence.
Henderson, Algo Donmyer; Solomon.
Howard, Harry Vandeveer; Arkansas City.
Joslin, Robert William; Hugoton.
Koehler, Jerome Sheridan; Paola.
Lang, Donald Buzick; Salina.
Levi, Philip Lewis; Kansas City.
Lonborg, Arthur C.; Horton.
Miller, James Ellsworth Burney; Iola.
Mitchell, John Wesley; Perry.
Monteith, John Nelson; *Kansas City, Mo.*
Murphy, Albert P.; Harper.
McElroy, John Willis; Harper.
McGinnis, Walter Fletcher; El Dorado.
Neighbors, Glenn Moomaw; McPherson.
Perkins, Oscar Floyd; Meade.
Phipps, Read Omar; *Kansas City, Mo.*
Randall, Charles Bromfield; Lawrence.
Rich, Horace Hakeo; Coldwater.
Robertson, Robert Lorin; Lawrence.
Schell, Oliver W.; Lawrence.
Sherwood, William Jesse; *St. Joseph, Mo.*
Shillerston, Dewey; Lawrence.
Simon, Loren Dale; Seneca.
Slonaker, John Orin; Lawrence.
Smiley, Stanton Lambert; Wilder.
Smith, Elbert Francis; Ellinwood.
Stringfellow, Fred Conway; McPherson.
Temple, George Robert; Wichita.
Toomey, Richard Allen; *Kansas City, Mo.*
Vance, Chester Dixon; Lebanon.
Washington, Herschel Lawrence; Leoti.
Welch, Kenneth; Emporia.
Wild, George Roder; *Kansas City, Mo.*
Woodward, Victor D.; Delphos.

MIDDLES.

Bolton, Harry Benjamin; Alta Vista.
Brown, Jack Prescott; *Kansas City, Mo.*
Casner, Carol Marguerite; *Kansas City, Mo.*
Clevenger, Louis Edgar; Concordia.
Conroy, William Patrick; Beloit.
Daily, Christopher Edmund; Scottsville.
Dillon, Dale Crowel; Coffeyville.
Farrell, Roy Christopher; Pratt.
Fink, Louis Osterroth; Lawrence.
Gard, Spencer A.; Iola.
Gott, Henry Vivion; Xenia.
Gould, George Ratliff; Dodge City.
Gunby, Kenneth Conger; Buffalo.
Hamilton, George Wayman; Topeka.
Haworth, Paul; Lawrence.
Hensley, Elbert Everest; Rose Hill.
Holland, Clifford Ruthven; Russell.
Huntzinger, John Lee; *Kansas City, Mo.*
Jackson, Bronce; Barnard.
Jarvis, Martin Elliott; Arkansas City.
Johnson, John Wesley; Olathe.
Jones, Paul Robert, jr.; Council Grove.
Kimmel, Walter L.; Cherokee.
Lundblade, Leon William; Jamestown.
Martin, Raymond, Ellsworth; Winfield.
Meyer, Everett R.; Oregon, Mo.
Miner, George Dewey; Wilson.
McKinney, Earl Bradley; Iola.
Patterson, Edward W.; Pittsburg.
Penney, Elvin Cecil; Lawrence.
Peters, Shirley Wilmont; Lawrence.
Pugh, Clifford Henry; Junction City.
Robbins, Riley Oran; Yates Center.
Rogers, Forrest Monroe; Wellington.
Rosenbloom, Zolon; Wichita.
Shaner, Albert Holmes; Lawrence.
Smith, Wint; Mankato.
Spurgeon, Tristan Lee Roy; Kansas City.
Steinle, John David; Russell.
Stevenson, George L.; Lawrence.
Thomson, Edwin Rea; Wichita.
Voorhees, Claude Harold; Leavenworth.
Waggener, Balie Peyton, jr.; Atchison.
Walker, D. Arthur; Arkansas City.
Waugh, John Young; Eskridge.
Wheeler, Eugene Laurence; Wichita.
Wilkinson, Virgil Milton; Wichita.
Williams, Josiah Davies; Clay Center.
Winsor, Carl Isaac; Atchison.

JUNIORS.

Adams, George Washington Lee; Wichita.
Applegate, Paul; Salina.
Armstrong, Willard; Larned.
Baldwin, Frank Lawrence; *St. Joseph, Mo.*
Ball, Charles Morton, jr.; Coffeyville.
Beeman, Fred Earl; Great Bend.
Blackburn, S. Robert; Cottonwood Falls.
Bontz, Antoine Nickle; Wichita.
Bowersock, Lawrence; Lawrence.
Bradley, Orval; *Cherokee, Okla.*
Bredberg, Elliott Louis; Clay Center.
Briese, Erwin L.; *Plainview, Minn.*
Bucher, Barney; Coffeyville.
Cameron, Bert L.; Manhattan.
Carlton, Sidney Ellis, jr.; Garden City.
Cavanaugh, George Edgar; Beloit.
Chandler, Stephen S.; Ottawa.
Chandler, William Paul; Lawrence.
Church, Bert Edward; Haddam.
Claudel, Leo Francis; Claudell.
Coors, Lawrence C.; *East Las Vegas, N. M.*
Coutts, Warren Hale; El Dorado.
Davidson, Bradner C.; Lawrence.
Davis, Fred Richard; *Kansas City, Mo.*
Delaney, Andrew Oliver; Leona.
Dutton, Lane Allen; Erie.

JUNIORS—*Concluded.*

Forrester, Herschel George; Moline.
Gard, George Edmond; Iola.
Garvin, Evart Campbell; St. John.
Gavigan, Thomas Patrick; Lawrence.
Gerety, John Henry; Wichita.
Getter, Hazle Pauline; Lawrence.
Grant, Harold B.; Kingman.
Harms, Wilmer Bettus; Wichita.
Hemphill, Arthur D.; Wa Keeney.
Hollie, Harrison Walker; Wichita.
Howell, Earl James; Morganville.
Huddleston, Nicholas Thomas; Danville.
Isaacs, Orin Lee; Lawrence.
Isern, Milton Alvin; Ellinwood.
Jackson, Mrs. Dorothy Perkins; Barnard.
Jamison, Edward Hugh; Idana.
Johnston, Clifford Louis; *Kansas City, Mo.*
Jurado, Pedro Farinas; *Magsingol, P. I.*
Keleher, Thomas C.; Hill City.
Kemper, Elmer Theodore; Bushton.
Kramer, August Elvin; Hugoton.
Lamb, Joseph Byron; *Okmulgee, Okla.*
Lamb, Paul Alson; Yates Center.
Lane, Thomas Davies; *St. Paul, Minn.*
Lauterbach, August William; Colby.
Lemon, Robert Sheldon; Pittsburg.
Mahin, Hilory Dennison; Smith Center.
Mendenhall, Sam A.; Kansas City.
Miller, Lewis Lapham; Independence.
Miller, Virgil W.; Howard.
Millikin, Fred Graham; Lawrence.
Mills, William Leo; Yates Center.
Moore, Norman Orville; Yates Center.
Morton, Lloyd Sherman; Beverly.
Murphy, Robert Boyden; Forest Lake.
Nelson, Clifford Carlisle; Ellis.
Parish, Havner Hurd; Lawrence.
Park, Albert Lawrence; White Cloud.
Perreault, Bryon Kenneth; Morganville.
Perry, William Clark; Belleville.
Pester, Benjamin H.; Hillsboro.
Pierson, Ray Samuel; Burlington.
Pile, Holland Clyde; Parsons.
Pinkston, Reid Anderson; Independence.
Preble, Fred Clarence; Hutchinson.
Reilly, William Daniel; Lawrence.
Royer, Horace Haldene; Wichita.
Scanland, Granville Elmer; Randall.
Shaw, Minnie; Kansas City.
Sheffrey, David Lloyd; Wichita.
Sifer, Samuel Iba; Iola.
Smith, Paul Kenneth; Iola.
Smith, Robert Monroe; *Kansas City, Mo.*
Smith, Zella Floyd; Thayer.
Spurney, Frank George; Belleville.
Stanton, Earl Clyde; Leavenworth.
Staplin, George Wilson; McPherson.
Staplin, William Watson; McPherson.
Stites, Otto Russell; Wa Keeney.
Theis, Raymond Addison; Kansas City.
Thompson, Walbert Felt; Mission Hills.
Voorhees, Mrs. Myra Bell; Leavenworth.
Wall, Harold Haywood; Sedan.
Wasson, Roy Higgs; Viola.
Weltmer, Loren Edward; Smith Center.
Welwood, George Arthur; Wichita.
Wetzel, Eugene George; *Kansas City, Mo.*
Williams, Alfred B.; Preston.
Williams, J. Wallace; Lawrence.
Williamson, Blake Arthur; Edwardsville.
Willis, Vergil E.; Iola.
Wilson, Alexander R.; Meade.
Woestemeyer, Armin Edward; Lawrence.
Wolfisbarger, Willard; Marion.
Woods, Bert L.; Greeley.
Woodward, Richard Clarkson; Lawrence.
Woody, Warren Vernon; Barnard.

SPECIALS.

*Alford, David Robert; Leavenworth.
*Armstrong, Ruth Irene; McPherson.
*Asher, Clinton Royce; St. John.
Beezley, William Newton; Kinsley.
*Bennett, Arthur Harry; Topeka.
*Binney, Robert Frank; *Strawn, Tex.*
*Blair, Donald C.; Beloit.
*Boyer, Guy Maxwell; *Kansas City, Mo.*
*Brueck, William Thomas; Paola.
*Carter, Jean C.; Lawrence.
*Clark, Harry Ernest; *Kansas City, Mo.*
*Cochran, Burt E.; Wichita.
*Coleberb, Robert E.; Lawrence.
Comer, Burt; Cullison.
*Dade, Emil B.; Nickerson.
Dierking, Clarence Henry; Alta Vista.
Fridell, Daisy Frances; Robinson.
Glanville, Joe Charles; Kansas City.
*Harrison, William Henry; Downs.
*Hitchcock, William H.; Augusta.
*Hoffman, Paul Davidson; Abilene.
*Hostetter, Lucky Wingert; Wellsville.
*Hughes, Lawrence D.; Lawrence.
*Joachim, Jerome; *Plainview, Minn.*
Johnson, Bertha Blanche; Cambridge.
*Keys, Hollis D.; Beloit.
*Kollmann, Jack E.; *Kansas City, Mo.*
*Kugler, Ernest William; Abilene.
*Liggett, Winfield F.; Kansas City.
*Little, Harley C.; Abilene.
*MacMurray, Arthur Cooper; Lawrence.
*McIntire, Geo. F.; Wichita.
*McMurphey, John William; Madison.
Neumann, Ernest Kaye; Coldwater.
*Oswald, Anthony Lewis; Hutchinson.
*Parker, Knowlton; Robinson.
Read, Lathrop B.; Lawrence.
*Rogers, Whitson G.; Wellington.
*Schwartzkopf, Edward A.; Bison.
Shinn, Henry Arthur; Cherryvale.
*Shofstall, Charles K.; Kansas City.
*Short, Lowell Davis; Assaria.
*Swenson, Clarence Godfrey; *Kansas City, Mo.*
*Tomlinson, Victor Rees; Independence.
*Tucker, John H.; Lawrence.
*White, Marceo Antonio; Chanute.
*Wirth, Bernard A.; Redwing.

* Enrolled in some other school of the University.

SCHOOL OF PHARMACY.

SENIORS.

Bell, Glen Everett; Attica.
Berg, Thomas Philip; Syracuse.
Binford, John Allen; Wellsville.
Coons, Elsie May; Lawrence.
Cooper, James Hiram; Kansas City.
Dailey, Katie Ray; Douglass.
Day, Gertrude; Greensburg.
Farris, Ivan Leo; Norwich.
Fish, Earl Strasser; Sedan.
Hess, Benjamin Winfield; Lawrence.
Jackson, Leta Mary; *St. Joseph, Mo.*
Jones, Chauncey Derrick; Wichita.
Labarge, Leo; Clyde.
Miller, Louis Franklin; Dodge City.
Paire, Leonard Emlys; Leavenworth.
Rinehart, William Galeard; Lawrence.
Seymour, Kathleen; Mound City.
Thompson, Homer; Wichita.
Williams, John Henry; Kansas City.

JUNIORS.

Buck, Forrest Delial; Topeka.
Copp, William Clifford; Kinsley.
Forney, Robert Hayden; Cottonwood Falls.
Frahm, Herman Clyde; Hartford.
Hobson, Vernon J.; Independence.
Kerr, Archibald Victor; Toronto.
Kerr, John Walter; Eskridge.
Kohl, Hugo Arthur; Hays.
LeBien, Alfred William; Lincoln.
Lederer, Harry Elmer; Hope.
Marquand, Glenn Dale; Ogallah.
Marshall, Rodney Merriam; Columbus.
Monroe, Mervin Franklin; Enterprise.
Morrison, Janice Eloise; Toronto.
Murphy, Dean Dorman; Meade.
Pickering, Loren Clifford; Langdon.
Poirer, Ferdinand Charles; Wathena.
Scharpe, Myron Leigh; Highland.
Schneider, Joe Henry; Topeka.
Shahan, Winfield F.; Marion.
Shemberger, Sam Williard; Burlington.
Sturgis, Frank F.; Troy.
Swaim, Harold Lee; Haviland.
Wilson, Clarence; Lawrence.
Zimmerman, William Milton; Troy.

SOPHOMORES.

Bratt, Ramon Dean John; Russell.
Chiang, Wilson Ging; *China.*
French, Shelton; Kansas City.
Greason, Glenn G.; Atwood.
Greason, James Douglass; Atwood.
Hay, Kenneth; Arkansas City.
James, Alvah William; Jewell.
Kutz, Chas. Harold; White Water.
Muhlheim, Ralph Eugene; Ellis.
McCain, Taylor Kenneth; Atwood.
Schroeder, Helen Frances; Kiowa.
Turner, John Wesley; Kansas City.
Webber, Myrtle Christian; Morland.

FRESHMEN.

Artman, Harry James; Denison.
Baber, Chas. Albert; *Springfield, Mo.*
Carter, John Mays; *Kansas City, Mo.*
Chitwood, Joe Vern; Pratt.
Delaney, Sherman Albert; Dighton.
Dressler, Lester Earl; Marquette.
Fenn, Alva Leon; Hutchinson.
Hicks, Martherine Morris; Topeka.
Jeter, Lula Mildred; *Okla. City, Okla.*
Jones, Artie W.; Kansas City.
Kissler, Harold Hailman; *Spickard, Mo.*
Kinniburgh, James Kent; Washington.
Maltby, George E.; Canton.
Melton, Wm. Elisha; Lawrence.
Murphy, Inez Marie; Humboldt.
McCrystal, Robt. J.; Lucas.
Nylund, Marion Lorene; Atchison.
Povenmire, Cora Alice; Gridley.
Rudy, Guy Pearl; Manhattan.
Shirley, Lee Edward; Lucas.
Woods, Joseph Risdon; Effingham.
Zinser, Ray Bolby; Lawrence.

SPECIALS.

Keilholtz, Maud Mable; Stockton.
Moffitt, Leila; *Bristow, Okla.*
Rousey, Ray; Osborne.
Welty, Otto Reuben; Wichita.

SCHOOL OF MEDICINE.

SENIORS.

Anderson, Forrest Nelson; Lawrence.
Beal, Homer; Topeka.
Beavers, Benjamin Franklin; *Decatur, Ind.*
Bennie, Herbert Stewart; Almena.
Bixby, Benjamin Parker; McPherson.
Blount, Justin Alexander; Larned.
Campbell, Robert Finley; Meade.
Cowls, George Edwin; Wichita.
Cox, Wilfred; Sharon Springs.
Dixon, Claude Frank; Kiowa.
Emerson, Ralph Waldo; Osborne.
Friesen, Herman Elmer; Hillsboro.
Gestring, Hugh Arthur; Atwood.
Gray, Helen Emily; Paxico.
Hurwitt, Samuel; Lawrence.
Johnson, Emsley Thomas; *Thomas, Okla.*
Kaufman, Hester Jaunita; Rosedale.
Mott, James Mabbitt; Kansas City.
McEwen, Fred John; Iola.
McWilliams, Cline Vansandt; *Archie, Mo.*
Newman, Carl Sullivan; Dighton.
Owens, Guy Ebenezer; Topeka.
Rannie, Paul Rumal; Lawrence.
Sandlidge, Allen Wilson; Mulberry.
Scott, John M.; Mankato.
Stevens, Roy Ulysses; *Kansas City, Mo.*
Terrill, Harold James; Robinson.
Thiessen, Edward Herman; Beloit.
Walz, Thomas Julius; Kansas City.
Welker, Joseph Edward; Lawrence.
Weltmer, Wardie Wallace; Smith Center.
Wilson, Ivanhoe Fernando; Lawrence.

JUNIORS.

Bennett, Joseph Samuel; Lawrence.
Beyer, Martin Ralph; McPherson.
Black, Eugene Cane; Kansas City.
Black, W. Byron; Lawrence.
Coffey, Erval; Kiowa.
Ewing, Ruth Evelyn; Kansas City.
Fabiana, Theodoro Dagondon; *Mambatao, P. I.*
Grauerholz, James William; Kensington.
Hedwig, Ferdinand Christian; Kansas City.
Hereford, Melvin; Marion.
Hershey, Noah Lincoln; Abilene.
Joslin, Leeman Charles; Bavaria.
Kellogg, Ernest Clinton; *Madison, S. Dak.*
Lutz, Elizabeth Jane; Holton.
Renner, Marion; Lawrence.
Sharp, Oscar; Pittsburg.
Sigrist, Frank August; Topeka.
Spicer, William Sidney; Lawrence.
Sutton, Edgar Milton; Cawker City.
Webster, Paul Reichard; Larned.
Willems, Leonard Carnody; Lansing.

SOPHOMORES.

Auchard, Virgil Marion; Clay Center.
*Beiderwell, Earl R.; Edna.
*Bernstein, Julius; *Newark, N. J.*
*Carey, Walter Ray; Osage City.
*Casford, Ralph Shelton; Bird City.
Chambers, Adelbert R.; Tescott.
*Cooke, Chas. H.; Wichita.
Cram, Victor Elliott; *Canon City, Colo.*
Dewey, Charles Homer; Elk City.
*Forman, George William; Alton.
Frick, John Paul; *Kansas City, Mo.*
Goss, Clark Cleo; Harper.
Gurden, William David; Topeka.
*Helman, Richard; *Kansas City, Mo.*
*Lee, Frank N.; Kansas City.
*Lee, George Raymond; Yates Center.
McIlhenny, Robert Campbell; Conway Springs.
Oglevie, Rial Richardson; Burr Oak.
Ross, Gilson A.; Delphos.
*Schnitzler, Fritz; Wichita.
Sewell, Arthur B.; Smithville.
Stephenson, Walter; Luray.
*Sterling, John A.; Lawrence.
Towne, Ralph Leonard; Lawrence.
Urie, Rolland William; Ramona.
Weaver, Glenn Shellborn; Concordia.
West, Charles Omer; Lawrence.
Wilbur, Clifford Henry; Lawrence.
Willhelmy, Ellis Warner; Kansas City.
*Weneinger, William; Fort Scott.

FRESHMEN.

*Abbey, Frank; Newton.
*Ashley, Byron J.; Pleasanton.
*Baldwin, Wilber Clifton; McPherson.
*Baum, Ernest E.; Kansas City.
*Becker, Luther Harrison; Meriden.
*Bird, Edward Homer; *Kansas City, Mo.*
*Blanke, Otto; Garden City.
*Brown, Irwin Schilling, Lawrence.
Broyles, Watkins Andrew; Bethany.
*Coons, Carl; Lawrence.
Davis, Harry; Galena.
Davis, Ralph Allison; Holton.
DeTar, Burleigh Eli; *Miami, Okla.*
Diver, Robert Warren; Yates Center.
*Ferguson, Samuel H.; Atchison.
*Ferris, Caryl Ray; McPherson.
*Gibson, Harry Victor; Wichita.
*Greider, Ruth Margaret; Topeka.
*Harms, Herbert; Wichita.
*Harrison, Alvie Brooks; Herington.
*Hart, Crozier; *Raton, N. Mex.*
*Henry, Schubert D.; Lawrence.

* Enrolled in some other school of the University.

FRESHMEN—*Concluded.*

*Hogg, Ira Dwight; Delphos.
*Knight, Durell Keeling; Kansas City.
*Kotler, Morris; Topeka.
*Madden, Leo; Effingham.
*Magill, Van Hooper; Lawrence.
*Marshall, Hal E.; Elk City.
*Millare, Ulpiano Dagdag; *Philippine Islands.*
*McCalmon, Charles Albert; Lawrence.
*McNalley, Joseph; Michigan Valley.
McNaught, James Bernard; Girard.
*Nevitt, James R.; Lawrence.
*Nicholson, Helen Julia; Lawrence.
*Parsley, Frank Edmund; Dodge City.
*Penwell, George H.; Lawrence.
*Phillips, Herman J.; Wichita.
*Rewerts, Fred Carl; Garden City.
*Roberts, Harold M.; Greensburg.
*Rollow, Royal Herbert; Russell.
Russell, Richard; Mineral.
*Schoonover, John; Lyons.
*Smith, Frederick A.; *Lamoni, Iowa.*
*Spalding, Wilbur B.; Wabaunsee.
*Stilwell, Robert J.; Kansas City.
Swenson, Engelbrekt August; Lindsborg.
*Tenny, Asa; Lawrence.
*Vermillion, Carl McLain; Tescott.
Watson, George Nathaniel; Lawrence.
*Weaver, James B.; Belleville.
*White, Marlett; Topeka.

SPECIALS.

Gibson, Mrs. Sybil Marsh; *Kan. City, Mo.*
Hassig, Cecil Edwards; Kansas City.

NURSES.

Bauerfinder, Neva Uno; Minneapolis.
Beeson, Oma; Natoma.
Caak, Ola Rae; Stockton.
Danner, Mary Olive; Burlington.
Fouts, Honor Olive; *Naponee, Neb.*
Hendrickson, Lenore Ethel; Columbus.
Hunter, Icel LeuReu; *Geneseo, Ill.*
Jones, Mabel Belle; Altamont.
Kinlund, Ethel Cornell; Ashton.
Line, Helen Theresa; Pittsburg.
Lonnecke, Irene Estella; Arkansas City.
Main, Emily Upshur; Arkansas City.
Miller, Maude; Norcatur.
Rearick, Sarah Isabelle; *Aurora, Mo.*
Reed, Gladys Irene; Arkansas City.
Stephens, Etta Maurine; Columbus.
Turner, Rachael; Rosedale.
Winn, Dorothy; Kansas City.
Yoxall, Elizabeth Alice; Stockton.

* Enrolled in some other school of the University.

SCHOOL OF EDUCATION.

SENIORS.

*Alexander, May Marie; Oskaloosa.
*Alter, Mrs. Ada McClelland; Lawrence.
*Anderson, Ila Edna Louise; Lawrence.
*Applegate, Aymee Agness; Lawrence.
*Armstrong, Housen Parr; Atchison.
*Bagby, Grace; Lawrence.
*Barnes, John Roland; Kincaid.
*Barnett, Helen Regina; Rosedale.
*Battersby, Editha Marie; *Kansas City, Mo.*
*Baum, Theresa Rosa; Galena.
*Beck, Ruth Elizabeth; Lawrence.
*Beeler, Nellie Eleanora; Mankato.
Bermejo, Fernando V.; *Romblon, P. I.*
*Berry, Merlin Smith; Jewell.
*Beyer, Lilah; Arrington.
*Blackburn, Glessie D.; Stafford.
*Bleakley, Georgina E.; Lawrence.
*Breitag, Emma M.; *Kansas City, Mo.*
*Bronaugh, LaVerne; *Kansas City, Mo.*
*Brown, Marie Alberta; Lawrence.
Burgert, Alice Celesta; Lawrence.
*Burke, Lois Louise; Lawrence.
*Bushnell, Hilda Corinne; Mound Valley.
Caldwell, Martha Belle; Lecompton.
*Calgren, Florence; Concordia.
*Carlin, Helen Margaret; Salina.
*Carter, Mary Ota; Chanute.
*Case, Goldie Ruth; Arkansas City.
*Case, Naomi Marie; Arkansas City.
*Chestnut, Early Mast; Kincaid.
*Christoff, Minnie; Kansas City.
*Clark, Ethel C.; Mankato.
Copeland, Helen; Quenemo.
*Copeland, Leroy N.; Lawrence.
*Correll, Loretta Pauline; Atwood.
*Crim, Virginia Dickinson; Lawrence.
Davis, Jeanette Martina; *Kansas City, Mo.*
Davis, Kathleen; Lawrence.
*Davis, Ruth; *Kansas City, Mo.*
*Ellsworth, Willoughby Fred; Mound City.
*Eytchison, Vivian Belle; Onaga.
*Faulders, Faith Amelia; El Dorado.
*Ferris, Florence Evelyn; Lawrence.
*Firestone, Maurine Estella; Wichita.
*Fitzgerald, Julia Marcella; Jamestown.
Fixley, Everett Hayes; Parsons.
*Flynn, Frances Helene; Humboldt.
*Foley, Catherine Mary; *Kansas City, Mo.*
*Fox, Lenora Sarah; Greeley.
*Fugate, Josephine; Lawrence.
*Gaskill, Grace Helen; Lawrence.
*Gillis, Bessie Beatrice; Garnett.
*Griffith, William Henry; Pratt.
*Grimsley, Bernice; Burlington.
*Gunn, Everett; Nickerson.
*Haelsig, Otto Herman; Eudora.
*Hamilton, Shirley Gonzales; Lawrence.
*Hart, George Marion; Lawrence.
*Hawkins, Mary Beatrice; *Jasper, Mo.*
Hiatt, May Farr; *Kansas City, Mo.*
*Hodson, Emery Loyd; Wichita.
*Holmberg, Corinne; Peabody.
*Howard, Marion Ruth; Cottonwood Falls.
*Hubbard, Lena Irene; Minneapolis.
*Huff, Bonnie Mae; Preston.
*Hunter, Julia Mary; Galena.
*Ishmael, Marjorie Ellen; Kiowa.
*Jewett, John Mark; De Soto.
*Jordon, Ella Marie; *Cheyenne, Wyo.*
*Jordan, Gladys Dolores; Glasco.
*Keefer, Kathryn; Olathe.
*Lacy, Blanche Mary; Lawrence.
*Lonergan, Flora Estelle; Topeka.
*Mackie, Martha; Lawrence.
*Marshall, Vivian; Leon.
*Merritt, Florence Maude; Lawrence.
*Minger, Ethel Louise; Bern.
*Morgan, Murzelle; *Kansas City, Mo.*
*Morrison, Ralph Edwin; Lawrence.
*McFadden, Norma; Ottawa.
*McKinney, Marie Murr; Hoxie.
*Nelson, Marguerite Isabel; *Okla. City, Okla.*
*Nichols, Helen Mavis; *Savanah, Mo.*
*Olsen, Grace Marguerite; Lawrence.
*Olsen, Mary Carolyn; Lawrence.
*Olson, Helen Edith; Topeka.
*Peck, Helen Jule; Arkansas City.
*Perkins, Alice Minerva; Howard.
*Petteys, Iona; Newton.
*Pittman, Clara Amanda; *Hooker, Okla.*
*Platz, Charles Ruffel; Eudora.
Pottorff, Minnie Opal; Severy.
*Pounds, Donna Vivian; Coldwater.
*Pyle, Mary Llewellyn; Lawrence.
*Quinlan, Virginia Josephine; Lawrence.
*Quinn, Grace Katherine; McPherson.
*Rhodes, Pauline Ann; *Hennessey, Okla.*
*Rice, Anita Bertha; Lawrence.
*Rinehart, Hattie; Lawrence.
*Rising, Edna Rose; Lawrence.
*Robinson, Cecelia Margaret; Potter.
*Sadler, May Irene; *Kansas City, Mo.*
*Sangster, Charles Ford; Lyons.
*Schafer, Sidonie Pauline; McPherson.
*Schumann, Margaretha; Lawrence.
*Scott, Anna Louise; Burlington.
*Shafer, Jeanette; Lawrence.
*Shaklee, Marie Elsie; *Waukomis, Okla.*
*Shaw, Verna Mae; McPherson.
*Smith, Bessie; Pratt.
*Smith, Meda Estelle; Paola.
*Smith, Zuma Zeda; Kansas City.
*Snead, Gladys Lucile; Council Grove.
*Snyder, Ivan Virgil; Norton.
*Songer, Irene Maud; *Kansas City, Mo.*
Stark, Stutely Henry; Ozawkie.
*Statler, Katherine C.; Strong City.
*Stauffer, Nina Aldeen; Randall.
*Steininger, Herbert Marvin; *St. Joseph, Mo.*
*Steininger, Vera Margaret; *St. Joseph, Mo.*
*Strand, Lillie Olivia; Independence.
*Strickland, Frances Wright; Hunnewell.
*Syster, Ruth Isabelle; Hiawatha.
*Terrell, Epinetta Valeria; Lawrence.
*Thompson, Helen Louise; *Kansas City, Mo.*
*Tiemann, Frieda Eulalia; Stafford.
*Vail, Helen Robison; *St. Joseph, Mo.*
*Weibel, Nadene; Lawrence.
Wheeler, Dorothy Mae; Fredonia
*Williams, Esther; Lawrence.
*Williams, Hariett Leah; Preston.

* Enrolled in some other school of the University.

JUNIORS.

*Atkinson, Janet; Lawrence.
*Bainum, Ella Marguerite; *Kansas City, Mo.*
*Ball, Cocha Mae; Mapleton.
*Banta, Grace Frances; Oberlin.
*Barksdale, Norval Palmer; Kansas City.
*Baxter, Dorothy; *Kansas City, Mo.*
Berry, Virginia; Lawrence.
*Bingaman, Esther Lionne; Ottawa.
*Bowers, Mabel Irene; Downs.
*Bowman, Mrs. Leah Miller; Lawrence.
*Boyer, Irene Leona; *Kansas City, Mo.*
*Bracken, Marie Edith; *Kingfisher, Okla.*
*Brown, Lela Lucile; Lawrence.
*Brownback, Leonore; Hardtner.
*Browne, Vera Elizabeth; Lawrence.
*Campbell, Helen Mildred; Lawrence.
Carder, Leone; Lawrence.
Clark, Jean; La Cygne.
*Cochran, Dorothy; Wichita.
*Cole, Lucile Jeanette; Lawrence.
*Conboy, Marie Sarah; Stilwell.
*Corn, Dennis Early; *Demorest, Ga.*
*Crandall, Lola Isabel; Le Roy.
*Crane, Dorothy E.; Howard.
*Doering, Kathleen Clare; Lawrence.
*Elliott, Maude Herriott; Lawrence.
*Erhardt, Charlotte Katheryn; *Kan. City, Mo.*
*Frost, Inez Ochel; Lawrence.
*Fugate, Jessamine Howell; Lawrence.
Fulton, Marjorie Elizabeth; Topeka.
*Galloway, Georgia Helen; Wa Keeney.
*Garrison, Regina; Wichita.
*Geiger, Alice Louise; Brookville.
*Geiger, Lucy Marie; Brookville.
*Glendinning, Jennie Blackly; Lawrence.
*Googins, Mrs. Dorothy Armel; Humboldt.
*Graeber, Margaret Gladys; Lawrence.
*Gray, James Williams, jr.; El Dorado.
*Gray, Walter Evans, jr.; Atchison.
*Hannah, Anna Mildred; *Odessa, Mo.*
*Hanscome, Anna Jeanette; Kingman.
*Harkrader, Laura; Pratt.
*Harlan, Mae Eleanor; Kansas City.
*Hartenbower, Leoti K.; Douglass.
*Heath, Gladys Esther; Wakefield.
*Hilkey, Leone Catherine; Lawrence.
*Hill, Lois Opal; Wichita.
*Hodges, Nadine; *Kansas City, Mo.*
*Hogue, Helen Schenck; Olathe.
*Holdman, Mary Louise; *Kansas City, Mo.*
*Holland, Georgiana; Russell.
*Jenkins, Laura; Hunnewell.
*Jeter, Esther; Alden.
*Johnson, Eva Blanche; Irving.
*Keeler, Lora; Lawrence.
Knoll, Venus M.; Severy.
*Kreibel, Jane; Moundridge.
*Lamb, Edna Raymond; Concordia.
*Layman, Hazel Bernardine; Hutchinson.
*Lemon, Goldie May; Parker.
*Light, Flora Dethe; Winona.
*Logue, Ida Kent; Lawrence.
*Long, Gladys Marguerite; Greenleaf.
*Lynn, Nellie; Lawrence.
*Marsh, Helen Margaret; Norton.
*Martindale, Jessie Ellen; Lawrence.
*Mathews, Velma E.; Kansas City.
*Mayberry, Burt Algernon; Wichita.
*Miller, Ruth Mary; Cottonwood Falls.
*Moody, Dorothy Belle; Lenexa.
*Murdock, Hilda Fletcher; Morse.
*McClain, Margaret Katherine; Lawrence.
*McGuire, Grace; Meade.
*McNulty, Frances Blanche; Coffeyville.
*Newman, Pauline Emma; Fort Scott.
*Noble, Isabel Tilton; Abilene.
*Owens, Kathrine Marie; Oxford.
*Pate, Ethel Mary; Walnut.
*Penney, Alice Rita; Hays.
*Pritchett, Frances; Kansas City.
*Puls, Pauline Marguerite; Wichita.
*Ramsey, Ruth Lavinia; Fort Scott.
*Reed, Agnes Lucile; Douglass.
Reed, Margaret Lee; Wichita.
*Robb, Mary Gertrude; Chapman.
*Robertson, Vina Lynn; *Silver City, N. M.*
*Rosenberry, Augusta; *Kansas City, Mo.*
*Rumberger, Helen Armena; Lawrence.
*Sanders, Aileen Isabel; Halls Summit.
*Sands, Freda Harriette; Robinson.
*Sands, Lillie Helen; Robinson.
*Sartin, Elizabeth Jane; Kansas City.
*Schaffer, Lorena Marguerit; Kansas City.
*Schultz, Ernestine; Lawrence.
*Simmons, Hazel May; Kansas City.
*Skillman, Maude; Burlington.
*Smith, Nellie; Horton.
*Sparks, Cecile Marie; Greensburg.
*Stanley, Dorothy Jewell; Lawrence.
Stimmel, Robert Marion; Fowler.
Strubble, George Goodell; Glasco.
*Stubbs, Nancy Catherine; *Fort Worth, Tex.*
*Summet, Reba Ruth; Paola.
*Taylor, Elizabeth; *Kansas City, Mo.*
*Thomeson, Evelyn Lamont; *Plattesville, Colo.*
*Towner, Herberta Frances; *Kan. City, Mo.*
*Tudor, Ida Patton; Holton.
*Turner, Roy Mathew; Effingham.
*Underwood, Mary; Lawrence.
*Utermann, Sophia Magdalene; Lawrence.
*Wanamaker, Elenora Frances; Blue Rapids.
*Webster, Edith; Larned.
*West, Marion; Lawrence.
*White, Valla Helen; *Kansas City, Mo.*
*White, Helene Josephine; Lawrence.
*Wilson, Gertrude Marie; Lawrence.
*Winship, Olive May; Syracuse.
*Zirkle, Daisy Valerie; Stafford.

SOPHOMORES.

Montano, Fermin Fernando; *Philippine Islands.*
Reeves, Blanch; Lawrence.

FRESHMEN.

Davis, Robert K.; Buffalo.

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* Enrolled in some other school of the University.

SPECIALS.

*Adams, Francis; Fort Scott.
*Agee, Ruth; Troy.
*Anderson, Mabel; Vesper.
*Anderson, Martha; Vesper.
*Anthony, Georgia; Lawrence.
*Atwood, Marguerite; Caney.
*Ayers, Helen; *Pekin, Ill.*
*Bacot, Eunice; Rosedale.
*Baird, Dorothy M.; Agenda.
*Batchellor, Norma; Lawrence.
*Bouska, Luther; Narka.
*Boyer, Roy L.; Lawrence.
*Bronson, Elsie M.; Mound City.
*Brophy, Athol; *Kansas City, Mo.*
*Brown, Esther; Lawrence.
*Browne, Neva Anne; Minneapolis.
*Burnam, Lura; Oskaloosa.
*Campbell, Harriet Marie; Lawrence.
*Campbell, Mary Jeanne; Meade.
*Carlton, Marjorie H.; Garden City.
*Cavanaugh, Dorothea; Dighton.
*Clark, Merle; Coffeyville.
*Clouse, Ruth; Cunningham.
*Constant, Olive Jane; Lawrence.
*Cretcher, Kathryn G.; Kansas City.
*Crump, Leah Emma; Hillsboro.
*Dills, Isabelle; Hillsboro.
*Duwall, Louis; Argonia.
*Eastwood, Loraine; *Okmulgee, Okla.*
*Eckel, Alice; Douglass.
*Ensminger, Dorothy; Lawrence.
*Fetherston, Maud; Coffeyville.
*Fisher, Marguerite; Caney.
*Forney, Elsie; Lawrence.
*Frater, Marjorie; Fredonia.
*Fulks, Josephine; Turon.
*Garner, Esther Marie; Haviland.
*Gentry, Mary; Lawrence.
*Gilbert, Lucile; Lawrence.
*Gordon, Zelma; *Straw, Mont.*
*Gould, Ruth Annie; Wilroads.
*Hamlin, Madge; Kansas City.
*Hart, Edwinna Marie; Macksville.
*Hart, Myrl; Macksville.
*Herrick, Don Henry; Lawrence.
*Hershberger, Crystal Lucile; Greensburg.
*Hinch, Gertrude K.; Kansas City.
*Hill, Ruth A.; *Granite City, Ill.*
*Holloway, Blanche; Lawrence.
*Hyre, Mabel; Lawrence.
*Jameson, Elsie Dean; Lawrence.
*Jewell, Lorene Osborne; Lawrence.
*King, Etta Marie; *Shawnee, Okla.*
*Klapmeyer, Florence; *Kansas City, Mo.*
*Koontz, Ferne; Columbus.
*Knukle, Gladys; Lawrence.
*LaSure, Mildred; Russell.
*Lewis, Freda; Kansas City.
*Lynn, Hazel Eugene; Lawrence.
*MacDaniels, Reba; Kansas City.
*Malone, Catherine Elizabeth; Caldwell.
*Mason, Willful Gaynelle; Kansas City.
*Metsker, Senora; Kansas City.
*Meuser, Mary; Paola.
*Mitchell, Gladys; Galena.
*Moore, Mary Nester; Wichita.
*McFadden, Maude; El Dorado.
*Neeley, Helen; Lawrence.
*Neeley, Vera; Lawrence.
*Nelson, Gladys H.; Lawrence.
*Oldendick, Harry; *Kansas City, Mo.*
*O'Meara, Mildred; Lawrence.
*Patterson, Doris; Lawrence.
*Patterson, Marian; Lawrence.
*Patterson, Marjorie; Harper.
*Raub, Lorna Marie; Lawrence.
*Regier, Emil; Moundridge.
*Riley, Frances; Soldier.
*Riordan, Maude F.; Solomon.
*Robinson, M. Barnadette; Potter.
*Sacher, Ruth H.; Holton.
*Saunders, Vera J.; Pleasanton.
*Seaman, Mildred; Lawrence.
*Sears, Lloyd; Harper.
*Senior, Marguerite; Waverly.
*Schlesener, Dorothea; Herington.
*Shafer, Josephine: Colby.
*Sheldon, Gene; El Dorado.
*Smiley, Ruth; Lawrence.
*Smith, Margaret; Newton.
*Spotts, Ruth; Lawrence.
*Stephens, Isabel; Atchison.
*Swanson, Arthur M.; *Kansas City, Mo.*
Swanson, Nina; McPherson.
*Symes, Don E.; Harveyville.
*Testerman, Pearl; Lawrence.
*Treff, Lurane Gertrude; Basehor.
*Troup, Lillian; Concordia.
*Weed, Helen I.; Lawrence.
*Whitcraft, Enterprise; *Kansas City, Mo.*
*Winship, Ruth; Syracuse.
*Wine, Mildred; *Kansas City, Mo.*

* Enrolled in some other school of the University.

SUMMER SESSION, 1920.

*Abbey, Frank L., jr.; Newton.
Chemistry.
*Agcaolili, Vicente; *Laoag, P. I.*
Chemistry.
Akright, James Gladstone; Lawrence.
Education, Sociology.
Albaladejo, Nana E. de; Lawrence.
Hispanic Languages.
Aldrich, Trylla; Smith Center.
Music.
*Alexander, Maye M.; Lawrence.
Entomology.
Alleman, M. F.; Kansas City.
Botany.
Allen, Cleo M.; Lawrence.
Economics, Public Speaking.
*Allen, Erroll W.; Williamsburg.
Engineering.
*Allen, Fredric R.; Lawrence.
Mathematics.
Allen, Richard; Independence.
Education.
Alsop, Inez; Wakefield.
Education.
*Alter, Mrs. Ada M.; Lawrence.
Home Economics.
Anderson, Essie J.; Lawrence.
Education.
Anderson, Gladys C. M.; Lawrence.
Music, Education.
*Anderson, I. Edna L.; Lawrence.
Psychology.
Anderson, Mary E.; Alma.
Economics, Education.
Anderson, Pearle; Severy.
English.
Andrews, Mary E.; Powhattan.
Education, Fine Arts.
*Anthony, Georgia; Lawrence.
Mathematics, Psychology, Economics.
*Appolonio, Nicholas; Lawrence.
Economics.
*Armstrong, Ruth Irene; McPherson.
Psychology.
Arnett, Ila Maud; Lawrence.
Hispanic Languages.
Arnold, Flora W.; Lawrence.
Music, English.
*Arnold, Grace; Lawrence.
Music.
*Ashley, John B.; Pleasanton.
Chemistry.
Ashton, Madeline; Lawrence.
Hispanic and Romance Languages.
Atkeson, Geo. Longdon; Yates Center.
Education, History, Graduate.
Atwood, Carrie; *Liberty, Mo.*
Education, English, Sociology.
*Auchard, Virgil M.; Lawrence.
Physiology.
*Ayer, Estella; Fall.
Entomology, English.
Babb, Theresa G.; *Brookfield, Mo.*
Physical Education, Design.
Banker, Marjorie; Russell.
Music.
Barbee, Frederick H.; *Kansas City, Mo.*
Education. Sociology.
Barber, Fred H.; Macksville.
Education.
Barker, Jessie A.; Paola.
Home Economics, Sociology, Economics.
*Barnby, Herbert A.; Lawrence.
Chemistry.
*Barnes, Lydia B.; Burlington.
English, Sociology, Biology.
Barnes, Richard A.; Ottawa.
Psychology, Education.
Barney, Nellie; Seneca.
Psychology, English.
Baskett, Roy F.; Holton.
Anatomy.
*Battersby, Editha; *Kansas City, Mo.*
Economics, Sociology, Education, English.
*Baumgartner, Leona; Lawrence.
Entomology.
*Bays, Martha E.; Eureka.
Bacteriology.
Beal, Edna; Lawrence.
Drawing and Design.
*Beck, Ruth; Lawrence.
Philosophy, Zoölogy, History, Education.
*Beiderwell, Earl R.; Shawnee.
Anatomy.
Bell, Alexander R.; Chetopa.
Law.
Bell, Etta R.; Rosedale.
English.
Belt, Enola M.; Burr Oak.
English, History, Economics.
Belt, Lela A.; Burr Oak.
Hispanic Language, History, English.
*Beltz, Willis H.; Weir.
Chemistry.
*Bennett, Charles A.; Eskridge.
Chemistry, Mathematics, English.
Bennett, Edward E.; Stafford.
Education, Economics.
*Bennett, Exxa M.; Kingsdown.
Zoölogy, Bacteriology.
*Bennett, Joseph S.; *Independence, Mo.*
Medicine.
*Bermejo, Fernando V.; *Panay, Capiz, P. I.*
Education, Philosophy, English, Sociology.
*Bernard, Clarence R.; *Cherokee, Okla.*
Chemistry.
Bernhard, Lillie; Lawrence.
Economics, Sociology.
Bernhard, Inez; Lawrence.
Botany.
Bessey, Mildred; Coffeyville.
Chemistry.
Beyer, Susie; Arrington.
Entomology, Zoölogy, Music, Public Speaking, Sociology.
Bigler, Mary; Abbyville.
Chemistry, Education, Zoölogy.
Billingsley, John A.; Kansas City.
Chemistry, English, Zoölogy.
*Bishop, Melvin P.; Lawrence.
Chemistry.
*Black, Byron W.; Lawrence.
———.
*Blair, Hugh M.; Lawrence.
Spanish, English.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

*Blake, Harold L.; Wichita.
Law.
*Blanke, Otto T.; Garden City.
Bacteriology.
*Bliss, Florence E.; Lawrence.
Psychology, Sociology, Romance Languages.
Bloom, Otis W.; Lawrence.
Mathematics.
Bluford, John Henry; *Kansas City, Mo.*
Education.
*Boell, Sarah J.; Wamego.
English.
*Boese, Adolph; Hillsboro.
Physiology.
Boone, Franklin G.; Manhattan.
Sociology, English, Philosophy, Zoölogy.
Borland, Grace; *Kansas City, Mo.*
Education.
*Bower, Katharine M.; Manhattan.
English.
Bower, Ralph M.; Ottawa.
Education, Economics.
*Boyle, Walter, jr.; Bennington.
Mathematics, Sociology, Economics.
Bradford, Cobb M. (Mrs.); *Savannah, Mo.*
English.
Branson, Mary L.; Eureka.
English, French.
Brewer, Bertha E.; Formoso.
Romance Languages, Drawing, French, Sociology.
*Bridgens, Bernice; Lawrence.
Education, Home Economics.
Bridges, Charlie D.; Kincaid.
English, Mathematics.
Brock, Edythe M.; Nortonville.
Latin.
*Brodie, John; *Des Moines, Iowa.*
Music.
Bromell, George D.; Kansas City.
Physical Education, Sociology.
Brown, Ben E.; Lawrence.
Physical Science.
Brown, Catherine L.; *Owensboro, Ky.*
Psychology, Sociology.
Brown, Elizabeth T.; Emporia.
Chemistry.
*Brown, Esther; Lawrence.
Dramatic Art, Music, Entomology.
Brown, Eva; Topeka.
Physics, History, Education.
Brown, Georgia T.; Independence.
Latin, History, English, Education.
*Brown, Lael; Lawrence.
Chemistry.
Brown, Maria; Lawrence.
Drawing and Design.
Brown, Mary L.; Lawrence.
English, Journalism, Zoölogy.
Brown, Rice E.; Emporia.
Education.
Browne, Floyd S.; McLouth.
Mathematics, Dramatic Art.
*Broyles, Watkins A.; Lawrence.
Romance Languages, Chemistry.
*Bruer, J. Marion; McPherson.
Entomology, Botany.
*Brunk, Leah; Almena.
Education, Sociology, English.
Buchanan, Nellie R.; Lawrence.
Hispanic Languages.
*Buckle, Ethel Rae; Stafford.
Drawing and Design, Entomology, English.
Bullock, Ernest G.; *Kansas City, Mo.*
English, Sociology.
*Burgert, Alice; Lawrence.
Psychology, English.
*Burke, Lois L.; Lawrence.
Education.
*Burnett, Dorothy L.; Linwood.
Entomology, Sociology, Romance Languages, Physical Education.
Burnett, Irma A.; Linwood.
Bacteriology.
*Bush, Paul L.; Topeka.
Chemistry.
*Buskirk, John R.; El Dorado.
Physiology, Economics.
*Butcher, Fred D.; Lawrence.
English, Sociology.
Byerly, Mayme; Carlyle.
Home Economics, Political Science.
Byers, Benjamin O.; *Creighton, Mo.*
Botany, English.
*Byrns, Arthur G.; Lawrence.
Hispanic Languages.
Caldwell, Lenore V.; Lecompton.
Education, Music.
*Caldwell, Martha Belle; Lecompton.
Psychology, Mathematics.
Calene, Edwin L.; Sylvan Grove.
Chemistry.
Campbell, Frances; Stanley.
English.
*Campbell, Harriet M.; Lawrence.
Psychology, History.
Campbell, R. F.; Meade.
Bacteriology.
*Carbaugh, Eugene, jr.; Wichita.
Romance Languages, Psychology.
*Carman, J. Neale; Lawrence.
Hispanic Languages, Romance Languages.
*Carter, Esther; Garden City.
Chemistry, Bacteriology.
Carter, Genevieve; Lawrence.
Romance Languages.
*Carter, Jean C.; Lawrence.
Entomology.
*Carter, Mary O.; Chanute.
English.
*Carter, Thomas J.; Lawrence.
English, Romance Languages.
Cary, Frances D.; *Hamilton, Mo.*
Sociology, Zoölogy, Education.
Casey, Marian E.; Atchison.
Zoölogy.
*Casner, Carol M.; Lawrence.
Law.
Cates, Ada E., Independence.
Education, English.
*Cates, Gladys; Iola.
Economics, Home Economics.
Cavanaugh, Ruth Lois; Dighton.
Zoölogy.
Cearley, Cassie Corinne; *Kansas City, Mo.*
Sociology, Education, History.
Chace, Florence; Lawrence.
Physical Education, Psychology.
*Chalkley, Marcella H.; Lawrence.
Psychology, Music.
Challiss, Lucy V.; Atchison.
Psychology, Romance Languages, Education.
*Chambers, Adelbert R.; Tescott.
Bacteriology.
Chambers, Benjamin F.; *Kansas City, Mo.*
English, Education.
Chambers, Helen; Lawrence.
English, Public Speaking, Psychology, Sociology.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

Chandler, J. R.; Kincaid.
Education.
Chandler, May; *Kansas City, Mo.*
Education, Philosophy.
*Chandler, Stephenson S., jr.; Kansas City.
Economics, Law.
Chappell, Frank F.; Lawrence.
Chemistry.
Charles, Russell; Attica.
Chemistry.
Charlton, Marion; Hesston.
Physical Education, History, Psychology, Philosophy.
*Chase, Mary E.; Lawrence.
English, Physical Education.
Chenoweth, Ethel L.; Elk City.
Music.
*Clark, Amy B.; Lawrence.
Music, Sociology, Dramatic Art.
*Clinton, John E.; Beverly.
English, Romance Languages.
Clower, Fay W.; Lawrence.
Sociology, Economics, Journalism.
Cobb, Clarissa F.; *Kansas City, Mo.*
Education.
*Cochran, Burt E.; Wichita.
Psychology, Design.
Coe, Jessie M.; Lawrence.
Spanish.
Coffay, Erval R.; Lawrence.
Bacteriology.
Coffey, Lola M.; *Kansas City, Mo.*
Education.
*Cole, Lucile; Lawrence.
Education.
*Coleman, Don P.; Leavenworth.
Chemistry.
*Coleman, Grace; Leavenworth.
Physical Education, Sociology.
Collins, Lloyd M.; Iola.
Education.
Collins, Olive; Pittsburg.
Hispanic Language.
*Conboy, Philip R.; Lawrence.
Economics.
Connelly, Gertrude; *Kansas City, Mo.*
Education.
Conner, David Ewing; Lawrence.
Modern Language, Romance Languages, Physical Education.
*Constant, Corinne; Lawrence.
Psychology, Sociology.
*Cook, Bernice; Lawrence.
Psychology, Sociology.
Cook, Julius E.; Lawrence.
English, Economics, Hispanic Languages, Physical Education.
*Cooke, Charles H.; Wichita.
Anatomy, Physiology.
*Coons, Elsie M.; Lawrence.
Chemistry.
Cooper, Lloyd F.; Hoxie.
Economics, Public Speaking, Music.
*Copeland, Helen; Quenemo.
English, Education.
Corn, Laura E.; Humboldt.
Sociology, Physiology, Zoölogy.
Cox, Iolene M.; Lawrence.
Sociology, Drawing and Design.
*Cox, Nadine; Lawrence.
Dramatic Art, Drawing.
Cram, Marcelle L.; Lawrence.
Music.
Crawford, Marie; Topeka.
Hispanic Language, Romance Language.
Creek, Olive M.; *Kansas City, Mo.*
Music.
*Crim, Virginia D.; Lawrence.
Mathematics, Zoölogy.
Crotty, Morgan H.; Pittsburg.
Latin, English.
*Crow, C. W.; *Kansas City, Mo.*
History.
Crowe, William; Lawrence.
Sociology, English.
Cuthbert, Elsie; Topeka.
Education.
*Cutter, Charlotte; Lawrence.
Psychology.
Dappen, Nora M.; Ramona.
Home Economics, Physical Education.
Davenport, Ross; Lawrence.
Economics.
*Davidson, B. C.; Lawrence.
Law.
Davis, Anna L.; *Kansas City, Mo.*
Public Speaking, Education.
Davis, Martena; Garnett.
Mathematics, Psychology, Astronomy, English.
Davis, Paul E.; Lawrence.
Chemistry.
*Davis, Ralph A.; Holton.
Chemistry.
Davis, Richard O.; Merriam.
Education.
Davis, Silas I.; Lawrence.
Chemistry.
Davis, Vista K.; Lawrence.
Education.
Decker, Margaret H.; Oskaloosa.
Zoölogy, Education.
*Dedrick, Winifred; Lawrence.
Design.
DeForrest, Carol H.; Wetmore.
Economics, Entomology, Sociology.
*Denver, Evilo; Tonganoxie.
Music.
Detlor, Grace; Topeka.
Education, Extemporaneous Speaking.
Devore, Rollin E.; Everest.
Education.
*Dewey, Chas. H.; Elk City.
Biochemistry.
*Dick, Ethel; Lawrence.
Music.
Dicker, Mary A.; Lawrence.
Education.
*Dillon, Dale C.; Coffeyville.
Law.
*Dills, Isabelle; Hillsboro.
English, Sociology.
*Diltz, Ronald; Kansas City.
Mathematics, Sociology, Physics.
Disney, Helen; Ellis.
Music, Physical Education.
*Dixon, Claude F.; Lawrence.
Anatomy.
Dixon, Flo; Kansas City.
Education, Sociology.
*Dixon, John L.; Lawrence.
English.
Docking, George; Lawrence.
English.
*Doering, Kathleen C.; Lawrence.
Entomology, Botany.
Doering, Raymond E.; *Goodrich, N. Dak.*
Anatomy.
Douglass, Mrs. Emma M.; St. John.
Hispanic Languages.
Douglas, Jessie; *Enid, Okla.*
English, Education.
*Dowell, Frank S.; Lawrence.
Chemistry, Economics, Mathematics.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

*Downs, Cornelia M.; Lawrence.
Physical Science, Biological Science.
*Draper, William E.; Lawrence.
Philosophy, Education.
*Dryden, Donovan M.; Parsons.
Chemistry.
Easley, Anna; Elk City.
Romance Languages, English.
Eaves, Lucinda E.; Lawrence.
English, Entomology, Sociology, Drawing and Design.
*Eberhart, E. A. Hazel; Lawrence.
Public Speaking, Journalism, Music, English.
Eberhart, Nora M.; Lawrence.
Hispanic Language.
Ecton, Ruby; Jarbalo.
English, French.
Eddy, Murray C.; Colby.
Chemistry.
Edmunds, Nellie; Independence.
Education, Public Speaking, Physical Education.
*Ege, Howard D.; Lawrence.
Engineering.
Eggleston, Mary; Lawrence.
Drawing and Design.
Eitzen, A. C.; Hillsboro.
Physiology, Anatomy.
*Elliott, Maude; Lawrence.
Education, Hispanic Languages.
*Elsey, Elizabeth; Lawrence.
Chemistry.
Elstein, Mordechae A.; Lawrence.
———.
Emerson, Josephine; Osborne.
Romance Languages, Spanish.
*Emerson, Ralph W.; Osborne.
Medicine.
*Engel, Dorothea L.; Lawrence.
Design, Psychology, Sociology.
*Engel, Herman B.; Lawrence.
Economics, History.
Englund, Sigred; Falun.
Economics, Zoölogy.
Epp, J. D.; Newton.
Economics, Philosophy.
Erb, Mrs. Paul; Hesston.
Education.
Erb, Paul; Hesston.
English, Philosophy.
*Estes, Arlie W.; Hutchinson.
Economics, Philosophy, Sociology.
Evans, Benjamin E.; Sterling.
Chemistry, Education.
*Evans, Carlos W.; Tonganoxie.
Law, History.
*Evans, Harold C.; Topeka.
Hispanic Language, English.
Evans, Harriett; Kansas City.
Music, English.
*Evans, Leo; Kansas City.
Romance Languages, Zoölogy.
Evans, Roscoe C.; *Vinita, Okla.*
Anatomy, Psychology, Education.
*Evans, Wade H.; Wa Keeney.
Journalism, Law.
*Eyer, D. B.; *Kansas City, Mo.*
Qualitative Analysis.
Eytchison, Fern; Onaga.
English.
*Eytchison, Vivian B.; Onaga.
English.
*Fabiana, Theodoro D.; *Mambajao, Misamis, P. I.*
Medicine.
Fairlamb, Helen G.; *Kansas City, Mo.*
Education.
*Faris, Harvey S.; Sterling.
Bacteriology.
Farling, Anna E.; Cherryvale.
English, Psychology, Home Economics, Physical Education, Public Speaking.
Farris, Oscar R.; Minneapolis.
Economics, History, Education.
Feldman, Bertha A.; Pittsburg.
Physical Education.
*Fengel, Frances; Abilene.
Home Economics.
*Ferguson, Eugene R.; Minneapolis.
Economics, Shop.
*Ferris, Caryl R.; McPherson.
Chemistry.
Fish, Lillian V.; Lawrence.
History, Economics.
*Fisher, Geo. N.; Leavenworth.
Physics.
Fleeson, Doris; Sterling.
Psychology, Education.
Fleeson, Howard T.; Sterling.
Law.
Fletcher, Louis R.; Scott City.
Bacteriology, Physiology.
Flinn, Ruby; Chanute.
Education, Mathematics.
Floyd, Dean L.; Sedan.
Law.
Foley, Elizabeth; *Kansas City, Mo.*
Psychology, History.
Ford, Creola; *Excelsior Springs, Mo.*
Music.
*Ford, Wm. Virgil; Lawrence.
Chemistry.
Foster, Cornelius; Waverly.
Education.
Foster, Edward W.; Lawrence.
Chemistry.
Foster, Geo. P.; Alta Vista.
Physical Science, Economics, Botany.
*Fowler, Edward D.; *Excelsior Springs, Mo.*
Education, History.
Frandle, Belle; Perry.
English, Economics.
*Franklin, Mary L.; Thayer.
Chemistry, Hispanic Languages.
Frederick, James V.; Bonner Springs.
Education.
*Friesen, Ernest C.; Hutchinson.
Chemistry.
Friesen, J. V.; Canton.
Philosophy, Sociology, Education, Physical Education.
Frisbie, Edith A.; Bonner Springs.
Education, Public Speaking.
Frye, Ora; Lincoln.
Romance Language, Home Economics.
Fults, Viola M.; Stilwell.
Economics, English, History, Sociology.
Gafney, Ray E.; Lawrence.
Music, Psychology.
*Gagliardo, Domenico A.; Cherokee.
Romance Languages, Public Speaking.
*Gants, I. Estle; Melvern.
Zoölogy.
*Garlinghouse, Marjorie P.; Iola.
Music.
Garrison, Jas. R.; Selma.
Economics, Physical Education.
*Garvin, Evart C.; St. John.
Law.
*Gaskill, Grace H.; Lawrence.
Entomology.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

Gaumer, Olive; *Izamal, Yucatan, Mex.*
Home Economics, Psychology, English, Zoölogy.
*Gaumer, Virdilla; Lawrence.
Anatomy.
Gear, Benjamin; Lawrence.
———.
Gibson, Ruth A.; *Kansas City, Mo.*
Education, Public Speaking.
Gibson, Ruth M.; Arrington.
Biology, Music.
*Gibson, Harry V.; Wichita.
Chemistry.
Gilbert, Harriet; Lawrence.
Drawing and Design.
*Gilbert, Lucile; Lawrence.
Chemistry.
Gill, Eva M.; Lawrence.
Drawing and Design.
Gill, Wayne I.; Lawrence.
Chemistry.
*Gilmer, Paul M.; Lawrence.
Entomology.
Gimple, Goldie; Mankato.
Public Speaking, Music, Drawing and Design.
Gimple, Olive; Mankato.
Physical Education, English, Music.
Givin, Grace E.; Manhattan.
Education.
Glasco, Maude E.; Lawrence.
Education, English, Psychology.
*Gleed, Joanna; Topeka.
Music.
Godding, Frank E.; Lawrence.
Education, Economics.
*Godlove, Elsie; Lawrence.
Physical Education, English.
Goff, Frank L.; Wichita.
Public Speaking, Economics.
Goldsmith, Goldwin; Lawrence.
Education, Psychology.
Golladay, Florence L.; Lawrence.
Education.
*Gorrill, Clarence M.; Lawrence.
Law.
Gossett, Burnham; Ottawa.
Mathematics.
*Goto, Shinzaburo J.;† *Hikone Omi, Japan.*
Zoölogy, Physical Education.
*Gould, George R.; Dodge City.
Law.
*Graeber, Margaret G.; Lawrence.
Entomology, Botany.
*Graham, Eugene B.; Holton.
Economics, Philosophy.
Grassley, Edith J.; *Independence, Mo.*
Economics, English.
*Gray, James W.; Lawrence.
Chemistry.
Green, Edna F.; Wichita.
Education.
Green, Helen L.; Iola.
Economics, Sociology, Home Economics, Political Science.
Green, Lottie E.; Wichita.
Education, Economics.
Greenlee, Elizabeth; Kansas City.
Economics, History.
Gregory, Omar D.; Alton.
Law, Education.
Gregory, W. Russell; *Kansas City, Mo.*
———.
Greves, Zoe B.; Lawrence.
French, Romance Languages.
Grice, Florence; Topeka.
Hispanic Languages.
Grossenbacher, Margaret; Bern.
English, History, Economics.
Gunthorp, Horace; Topeka.
Zoölogy.
*Gurden, William D.; Lawrence.
Chemistry.
*Hackman, Lucy M.; Lawrence.
Entomology.
*Haggart, Robt. A.; Lawrence.
Hispanic Languages.
Haines, Jean R.; Galena.
Journalism, Home Economics, Sociology, Zoölogy.
Haines, L. J.; Galena.
English, Public Speaking.
Haines, Lucile P.; *Enid, Okla.*
Public Speaking, Education.
Hale, Cecile S.; Lawrence.
Music, Drawing.
Hall, Walter; Lawrence.
Chemistry, Economics.
Hallock, Mary M.; *Milford, Tex.*
Botany, Entomology, Education.
*Hambleton, Lola; De Soto.
Education.
Hamill, Elma G.; Sterling.
English.
Hamilton, Alice; Anthony.
Spanish.
Hampson, Lucile; Fredonia.
Philosophy, English, Public Speaking.
Hanna, Marcus A.; Lawrence.
Entomology.
*Harding, Orpha; Lawrence.
Public Speaking, Hispanic Languages.
*Harris, Clarence A.; Horton.
Chemistry, Engineering.
*Harris, John Carter; *Eastland, Tex.*
English.
Harris, Ruth B.; Eudora.
Education.
Hart, Helen; Wichita.
Education, Romance Languages.
Harvey, Lida E.; *Kansas City, Mo.*
Education.
*Haskin, Helen D.; Harper.
Music.
*Hassig, Cecil E.; Lawrence.
———.
*Hay, Lawrence C.; Paola.
Geology.
Hay, Louis; Eskridge.
Economics, Sociology.
Haynes, Violet; Emporia.
English.
*Hayslip, Elizabeth; Bethel.
English, Philosophy, Education.
Healey, Florence; Salina.
Journalism, History.
*Heaton, Florence; *Plattin, Mo.*
Hispanic Languages, English, Spanish.
Heiser, Edith C.; Tonganoxie.
Education.
*Helwig, Ferd C.; Kansas City.
Anatomy.
*Hemenway, Keith A.; Lawrence.
English.
Henley, Ursula C.; Olathe.
Journalism, Hispanic Languages.
*Hensley, Elbert E.; Rose Hill.
Law.
Herron, Allen M.; Eureka.
Education.
*Hess, Ben W.; Lawrence.
Chemistry.
Hess, Edith I.; Lawrence.
Economics.

* Also in regular session.
† Deceased.

SUMMER SESSION, 1920—*Continued.*

Hessel, Victor E.; *Holt, Mo.*
Sociology, Anatomy.
*Hickok, Garold L.; Kansas City.
Zoölogy.
Higgins, Katherine; Easton.
Music.
Higgins, Thomas J.; *Washington, D. C.*
Spanish.
Hill, Charles W.; Eudora.
Mathematics, Education.
Hill, Eunice; Eudora.
Romance Languages, History.
Hill, Ormond P.; Lawrence.
Economics, English.
Himpel, Minnie, Tonganoxie.
Languages.
Hoar, M. Ethel; Lawrence.
English.
Hobbs, Loren G.; Lawrence.
Drawing and Design.
Hoch, Frank M.; Wilson.
Physiology.
Hodgell, Ray D.; Mankato.
Sociology, Education.
Hoernig, Lena; *Kansas City, Mo.*
Sociology, Education, Romance Languages.
*Holland, Benjamin L.; Lawrence.
Economics, Mathematics, Astronomy.
Holm, Jane; Atchison.
Education.
Holman, Araminta; Leavenworth.
English.
Hooker, Minnie L.; *Kansas City, Mo.*
Education.
*Hoover, Hadley H.; Mound City.
Mathematics.
Hoover, William T.; Lawrence.
Entomology, Agriculture, Education, Sociology.
Hopkins, Josephine; Lawrence.
Romance Languages.
Hopkins, Lily; Fulton.
Philosophy, Education.
Hornbuckle, Eva; Lecompton.
Music.
Horne, Samuel H.; *East Enid, Okla.*
Education.
*Horr, W. H.; Lawrence.
Entomology.
*Hough, Laura M.; Wetmore.
Music.
Houghton, Maude M.; Emporia.
English.
Howard, Della; Leavenworth.
Home Economics.
Howard, Floyd; Lawrence.
———.
Howard, Marian R.; Cottonwood Falls.
Education.
*Howe, Orrin K.; Lawrence.
Chemistry.
*Huff, Hubert W.; Fort Scott.
Chemistry, Engineering.
Huffman, N. Harold; Lawrence.
Economics, Chemistry.
*Huffman, Nathan H.; Lawrence.
Romance Language, Hispanic Languages.
*Hughes, Lawrence D.; Lawrence.
Economics, History.
*Hughey, Mildred; Lawrence.
Drawing, English.
Hults, Arlo; Lawrence.
Music.
Hults, Donald; Lawrence.
Music.
Humphries, Susie I.; Williamstown.
English, Mathematics.
*Hungerford, Frances (Mrs.); Lawrence.
Music.
*Hunter, Robert; Kansas City.
Zoölogy.
Huston, Harry E. K.; Winfield.
Education, History.
Hutton, Oscar D.; *Atoka, Okla.*
Education, Public Speaking.
Hyre, Florence; Lawrence.
Language, Home Economics, Sociology.
Irvine, Joseph L.; White Cloud.
Chemistry.
*Isenberger, Robert M.; Salina.
Bacteriology.
*Isern, Elmer N.; Ellinwood.
Chemistry.
*Jackson, Bronce; Lawrence.
Law.
*Jackson, Dorothy M.; Lawrence.
Law.
Jackson, Voila A.; Lawrence.
Music.
Jaeger, Freda M.; *Webb City, Mo.*
Home Economics.
*Jefferson, Leo; Neodesha.
Zoölogy.
Jenkins, J. K.; Saffordville.
Education.
Jevons, Beulah H.; Wakefield.
History, Education.
Jewell, Carrie; Mount Hope.
Psychology, English, Education.
*Jewell, Lorene O. (Mrs.); Lawrence.
Sociology.
*Jewett, John M.; De Soto.
Education.
*Johannes, Marion; Lawrence.
Fine Arts.
*Johnson, Arthur S.; Lawrence.
Chemistry.
Johnson, Emmett R.; *Lone Oak, Tex.*
Chemistry.
*Johnson, E. T.; Rosedale.
Anatomy.
Johnson, George S.; *Monticello, Mo.*
Anatomy.
*Johnson, Richard M.; Pittsburg.
Bacteriology, Biology.
Johnson, Ruth P.; Lawrence.
Music.
*Johnson, Thurston L.; Lawrence.
Bacteriology.
Johnson, William H.; *Independence, Mo.*
Education, English.
Johnston, Clara; Topeka.
Sociology, Economics.
Jones, Alexander H.; Quindaro.
Education.
Jones, Beatrice; Lawrence.
English, Sociology, Music.
Jones, Mary I.; Lawrence.
Chemistry.
*Jones, Sleden M.; Lawrence.
English.
Josephson, Reuben; *Kansas City, Mo.*
Economics, Psychology, Sociology.
Kaminsky, Jacob; *Brooklyn, N. Y.*
Physiology.
Kammer, Lloyd F.; Lawrence.
Chemistry.
Kanaga, Elizabeth; Lawrence.
Sociology; Education.
Kanzig, Louise A.; Eudora.
English, Drawing and Design.
*Keefer, Kathryn; Olathe.
Home Economics, English.
*Keeven, John Patrick; Wathena.
History, Law.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

*Kell, Helen H.; Lawrence.
Music.
Kennedy, Margaret E.; Lawrence.
Hispanic Language, Physical Education.
Keroher, Grace A.; Lawrence.
Chemistry.
*Keroher, Raymond P.; Lawrence.
Chemistry.
*Kerr, Archibald V.; Toronto.
Chemistry.
Kerr, Raymond M.; Salina.
Chemistry.
*Kiefer, Everett D.; Lawrence.
Biological Chemistry.
Kinney, Ethel M.; Larned.
Physiology.
Kirby, Samuel S.; Lawrence.
Physics.
Knabe, Hazel: Moline.
Music, Education.
Knotter, Geraldine; Oberlin.
Public Speaking, Hispanic Languages, Romance Languages.
*Kollman, Jack E.; Lawrence.
Economics, English, Philosophy, Sociology.
Koohler, Nina; Leavenworth.
Public-School Music, Design.
*Korb, John Herman; Lawrence.
Physiology.
Koslosky, Isadore D.; *Russia.*
Biological Chemistry, Physiology, Zoölogy.
Kretsch, Charlotte; *Perry, Okla.*
English, Journalism.
Krumsick, Wilhelmina M.; Paola.
Home Economics, Sociology, Education.
Kube, Emma; *Kansas City, Mo.*
Education, History.
*Kunkel, Gladys I.; Lawrence.
English, Philosophy.
Kunkle, Geneva M.; Lawrence.
Economics, Dramatic Art, English, Sociology.
Kutch, Celora B.; Ottawa.
Education, Philosophy.
Lagerquist, Richard R.; Salina.
Hispanic Language, History, Sociology.
Lain, Nell E.; *Kansas City, Mo.*
Education.
Laird, Paul E.; Whiting.
Chemistry.
Landis, May; Lawrence.
Education.
Larimer, Ruth; Topeka.
Education, Romance Language.
Lasell, Fred B.; *Maryville, Mo.*
Mathematics.
*Law, F. Mildred; Lawrence.
Sociology, Chemistry.
*Law, Seaton M.; Lawrence.
Chemistry.
Lawrence, Effie L.; Garden City.
Philosophy, Economics, English, Education.
Leach, Elizabeth C.; Baldwin.
English, Public Speaking.
*Lee, Frank N.; Kansas City.
Bacteriology.
*Lemon, Goldie M.; Parker.
Education, Sociology, Economics, English.
Leonard, Angela; *Kansas City, Mo.*
Education.
*Lesh, Hazel M.; Garnett.
Romance Language, Psychology.
*Le Suer, James M.; Lawrence.
English, Romance Languages.
Lewis, Benjamin P.; *Amber, Okla.*
Mathematics, Education, Psychology.
*Lewis, Marion F.; Lawrence.
Philosophy.
Lewis, William A.; *Kansas City, Mo.*
Philosophy, Zoölogy.
*Lindley, Georgia E.; Lawrence.
English.
Linsdale, J. E.; Lawrence.
Education.
Lock, Pearl; Arkansas City.
Education, English.
Lockwood, A. O.; Baldwin.
Education.
Long, Albert A.; Lawrence.
Law.
*Long, Carl E.; Agenda.
Law.
Long, Henry J.; Lawrence.
Chemistry.
Longshore, Fannie B. (Mrs.); Lawrence.
English.
Luby, William A.; *Kansas City, Mo.*
Mathematics.
Macdonald, Margaret A.; Waterville.
Romance Languages, Economics, Education.
Mac Gregor Helen B.; *Yankton, S. Dak.*
Language.
Mack, James W.; Lawrence.
Hispanic Language, Spanish.
Mack, Lorena; Lawrence.
Entomology.
*Mackie, David C.; Lawrence.
Economics, Public Speaking.
*Mackie, Elizabeth; Lawrence.
Music.
*Mackie, Martha; Lawrence.
Sociology.
Macon, Winnie; Lawrence.
Mathematics, Education.
Magnusson, Amanda; Lindsborg.
Education.
Malin, James C.; Hutchinson.
Political Science.
*Malleis, Harry; Halstead.
Chemistry, Entomology.
*Mann, Delbert M.; Lawrence.
Economics, Sociology.
Marcell, Helen; Ottawa.
Music.
*Marker, Daniel I.; Ozawkie.
Chemistry, Economics.
*Marshall, Earl E.; Elk City.
Astronomy.
Marshall, Geo. H.; Augusta.
Education.
Martin, Edwin, jr.; Ottawa.
Economics.
*Martin, Lila L.; Topeka.
Entomology.
Masemore, Frank N.; Coldwater.
Journalism.
Massey, May; *Kansas City, Mo.*
Education, Romance Languages.
Matthews, Violet; Topeka.
Economics, Education.
Maupin, Hattie B.; Ottawa.
Education, Home Economics.
*Maupin, Oakland L.; *Carrolton, Mo.*
Anatomy, Zoölogy, Philosophy.
*Maxey, Benjamin T.; White Water.
Chemistry.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

Mazzei, Peter A.; *Parkville, Mo.*
Chemistry, English.
*Meeker, Bruce P.; Wichita.
Chemistry, Physical Education.
Mellenbruch, Pearl L.; Lawrence.
Education, Psychology.
*Melvin, Virginia; Lawrence.
Hispanic Language.
Merridith, Myrtle M.; Kansas City.
History.
*Merritt, Florence M.; Lawrence.
Bacteriology.
*Messmore, Harold E.; Morrill.
Chemistry.
*Metsker, Sonora T.; Kansas City.
Education.
Miers, Albert H.; Manhattan.
Physiology.
Miles, Margaret A.; Lawrence.
Kinesiology, Drawing, Education.
*Miller, Helen B.; Lawrence.
Music.
Miller, Mabelle M.; *Kansas City, Mo.*
English.
Miller, Minnie M.; Council Grove.
French, Spanish.
Miller, Ramona; Council Grove.
History, Physics.
Millikin, Martha F.; Lawrence.
Drawing and Design.
*Miner, Erle S.; Sabetha.
Economics, Mathematics, Sociology,
Mitchell, Claire W.; Geuda Springs.
Education.
Mitchell, Lora M.; Geuda Springs.
Education, Psychology.
*Mohrbacher, N. Arthur; Marysville.
Chemistry.
Moore, Hazel G.; Lawrence.
English, Public Speaking.
Moore, Horace D.; Lawrence.
History.
*Moren, Dorothy C.; Lawrence.
Education, Home Economics.
*Morgan, Murzelle; *Kansas City, Mo.*
Education, Romance Languages.
Morrison, Charlotte M.; Lawrence.
Sociology, Physical Education, Philosophy.
*Morrison, Ralph E.; Lawrence.
English, History, Economics, Psychology.
Moseley, Dorothy; *Kansas City, Mo.*
Psychology, History, Economics.
*Mott, James M.; Kansas City.
Anatomy, Physiology.
Mullin, E. Maurice; Walnut.
Education.
*Murphy, Albert P.; Lawrence.
Law.
*Myers, Jared L.; Alden.
Chemistry.
Myers, Lannah N.; Liberal.
English, Public Speaking.
Myers, Maude; Saffordville.
Entomology.
Myers, Maude M.; *Kansas City, Mo.*
Education.
McBride, Rheva; Onaga.
Fine Arts, Education.
McBride, Roy H.; *De Soto, Mo.*
Biological Chemistry.
McCafferty, Estelle; *Webb City, Mo.*
History, Physiology, Entomology.
McCaffrey, Cuba; Tonganoxie.
Hispanic Languages; History.
*McCalmon, Chas. A.; *Blairstown, Mo.*
Zoölogy.
McCoy, Lucy F.; Kansas City.
Education, Physiology.
*McCoy, N. Rachel; Wamego.
Physics, Entomology, Sociology.
McCrory, Maurice N.; Emporia.
History, Economics.
*McCurdy, Henry B.; Lawrence.
Drawing, Journalism, Sociology, Philosophy.
McCurry, Frank W.; Peru.
Chemistry, Physical Education.
McDougal, Vida L.; Lawrence.
Psychology, Music.
McDuffee, Ophelia L.; Topeka.
Economics, Education.
*McElroy, John W.; Lawrence.
Psychology, Law.
McGee, Howard H.; Olathe.
———.
McGregor, Clarence H.; Concordia.
Sociology, Economics.
*McIntire, George F.; Wichita.
Economics, English.
*McKibbin, Mabelle C.; *Kansas City, Mo.*
Psychology, English.
McKittrick, Margaret M.; Wilson.
Education, Psychology.
McKnight, Carrie; Eskridge.
Physical Education, Anatomy.
*McLain, Ernest K.; Wellsville.
Chemistry, Anatomy.
*McLaughlin, Louise; Greensburg.
Psychology, Music.
McMillan, Helen; *Kansas City, Mo.*
Philosophy, Education, English.
*McMurphey, John; Lawrence.
Entomology, Botany.
*McNalley, Joseph E.; Michigan Valley.
Education, Physical Education.
*McNary, Mabel; Garnett.
Fine Arts.
*McNaught, James B.; Girard.
Physics.
Naber, Peter G.; Miltonvale.
Mathematics.
Naismith, Jack E.; Lawrence.
Economics, Physical Education.
*Nakpil, Juan; *Manila, P. I.*
Philosophy, Mathematics, Music.
Neal, Floy; Dodge City.
History, Psychology, English.
*Neely, Helen; Lawrence.
Drawing, Psychology.
*Nelly, Vera; Cimarron.
Music.
*Nelson, Ellen E.; Randolph.
Physiology.
Nelson, E. Leonard; Bridgeport.
Economics.
*Nelson, Iril; Lawrence.
Chemistry.
Nelson, Lawrence E.; *Sioux Falls, S. Dak.*
English, Education.
*Nelson, Loraine; Lawrence.
Music.
Nettels, Chas. H.; Topeka.
Biological Chemistry, Chemistry.
*Nevitt, James R.; Mildred.
Medicine.
*Nevitt, Rollin R.; Mildred.
Anatomy.
*Nichols, Helen M.; *Savannah, Mo.*
Psychology, Astronomy, Philosophy.
Nichols, Jack; *Savannah, Mo.*
Chemistry, Mathematics, English.
*Nichols, Lois E.; Pawnee Rock.
Music.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

Nicholson, Hodgdon I. (Mrs.); Lyons.
Hispanic Languages.
*Nicholson, Ora F.; Lawrence.
Chemistry.
Nixon, Mabel; Lawrence.
Anatomy, Education, Psychology.
Nowlin, Ethel F.; Lawrence.
English, Physics.
Noyes, Laura B.; *Kansas City, Mo.*
Fine Arts, Education, Philosophy, Sociology.
*Nungesser, Ella; Lawrence.
Music.
Nutt, Mrs. H. W.; Lawrence.
Education.
*Oates, Anthony; Minneapolis.
English, Economics, Astronomy.
Public Speaking.
*O'Brien, Elizabeth D.; Lawrence.
Music.
O'Bryan, Anna Bradley; *Princeton, Ky.*
History, English, Philosophy.
*Oglevie, Rial R.; Burr Oak.
Biological Chemistry.
Orlander, Clifford P.; Topeka.
Chemistry.
*Oldendick, Harry H.; *Kansas City, Mo.*
History, Education.
*O'Leary, Edward; Fredonia.
Chemistry, Engineering.
*O'Leary, Paul; Lawrence.
Philosophy, English.
Olmstead, Janette; Lawrence.
French.
Olney, Frank H.; Lawrence.
Education.
*O'Meara, Edith F.; Lawrence.
Hispanic Language, English.
*O'Meara, Mildred E.; Lawrence.
French, Philosophy, Psychology.
Orelup, F. Faye; Lawrence.
Drawing and Design, Education.
*Osborn, John L.; Lawrence.
Zoölogy, Mathematics.
Osborne, John F.; *Kansas City, Mo.*
Education, Public Speaking.
*Ott, Gladys; Lawrence.
Home Economics, Physiology, Economics.
*Owens, Guy E.; Topeka.

Owens, Seth J.; Effingham.
Zoölogy, Education, Physical Education.
Palmer, Alice H.; Wellington.
History, Language, Economics.
*Park, Anne Osborne; Atchison.
Psychology, English.
Parker, Ivy R.; *Pleasant Hill, Mo.*
Education.
Parks, Neva C.; Tecumseh.
Mathematics, History.
*Pate, Vernon; Topeka.
Physics.
*Patterson, Doris; Lawrence.
Sociology.
*Patterson, Tyler C.; Girard.
English, Hispanic Languages.
Patton, Fannie O.; Lawrence.
Education, Psychology, Physical Education.
Patty, F. Arthur; Lawrence.
Bacteriology.
Peacock, Samuel F.; Stafford.
English.
*Peacock, Vera M.; Blue Rapids.
Chemistry, Bacteriology, Sociology. Philosophy.
*Peck, Helen; Arkansas City.
Mathematics, Home Economics.
Peek, M. L.; Arkansas City.
English, Sociology, Economics, Philosophy.
Pelton, Perle; St. John.
English.
*Penney, Elvin C.; Lawrence.
Law.
Penney, Harriet E.; Washington.
Education.
Perkins, Caroline; Eudora.
Romance Language.
Perkins, R. Helen; *Lake Forest, Ill.*
Romance Languages, Education.
Perkins, Lottie B.; Lawrence.
Education.
*Perkins, Lucius J.; Lawrence.
Chemistry.
Perrussel, Raymond; Onaga.
Chemistry.
Perry, Evangeline; *Albuquerque, N. Mex.*
Economcis, English.
*Peters, Charles M.; Paola.
Chemistry, Mathematics.
Peterson, John O.; Assaria.
Physical Education, Physics.
Phelps, Elsie I.; Pittsburg.
English.
Phelps, Paul S.; Ottawa.
Entomology.
*Philipp, Herman J.; Wichita.
Medicine.
Phillips, John F.; Winfield.
Mathematics.
*Phillips, Myra L.; Lawrence.
Public Speaking, Sociology, English History.
Picken, May L.; *Kansas City, Mo.*
Education.
*Pile, Clare; Lawrence.
Hispanic Languages, Public Speaking.
*Pile, Rilla; Lawrence.
Hispanic Language, English.
*Platz, Chas. R.; Leonardville.
Psychology, History, Sociology.
Pollard, James H.; Lawrence.
Education.
*Pommerenke, Wesley I.; Woodbine.
Physics, Philosophy, Zoölogy.
Porter, Alfred J.; Lawrence.
Medicine.
*Porter, John M.; Topeka.
Chemistry.
*Pospisil, Philomena; Wilson.
English, Physical Education, Music.
*Pottorff, Minnie; Severy.
Education, Home Economics.
Price, Lillian; Kansas City.
Music, Hispanic Languages.
Provost, Ruby; Lawrence.
English, French.
*Puffett, Dale Howard; Lawrence.
Bacteriology, Philosophy.
Pyle, Lela; Lawrence.
English; Home Architecture.
*Pyle, Llewellyn M.; Lawrence.
Education, English, Sociology.
*Quinlin, Virginia; Lawrence.
Political Science, Economics.
Quinn, Ermel N.; Greenleaf.
Music, Economics.

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* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

*Ramsey, Ruth L.; Fort Scott.
English, History, Mathematics, Economics.
*Randall, Charles B.; Lawrence.
Law.
Rankin, Laura; Lawrence.
English.
Ransom, Turner P.; Wichita.
Anatomy.
*Rarig, Lucile; Minneapolis.
Sociology, English.
*Raub, Lorna M.; Lawrence.
Music.
Reardon, Allie R.; Liberty.
English, Music, Physical Education.
Rearick, Anna J.; Lawrence.
Education.
Rector, Erma; Scott City.
Fine Arts, Drawing.
Reed, Carlos I.; Lawrence.
Physiology.
Reich, E. Hattie; *Springfield, Mo.*
Education, Sociology.
Reid, Alice; *Kansas City, Mo.*
Education.
Reitz, Esther; Olathe.
Hispanic Language, Public Speaking, Physical Education.
Renn, O.; *Summersville, Mo.*
Law.
Reno, Flavel E.; Tonganoxie.
Zoölogy.
Reynolds, Olive; Holton.
English, Public Speaking.
Rhine, Orin M.; Oskaloosa.
Education.
Rice, Alice H.; Lawrence.
Hispanic Language, English.
Richmond, Lloyd; Kansas City.
Zoölogy.
Rife, Mildred; Anthony.
History, English, Psychology.
*Ritter, Cassandra; Iola.
English, Bacteriology.
Roberts, Anna; Lawrence.
Romance Languages.
*Roberts, Gola H.; Fort Scott.
English, Journalism.
Robertson, Dora; Columbus.
English.
Robinson, Ernest F.; Lawrence.
Economics, Sociology.
*Robinson, Lois L.; Harper.
Chemistry.
Robinson, Rhoda K.; Abilene.
Chemistry.
Rodenburg, Reynold E.; Lawrence.
Economics, Sociology.
*Rogers, Whitson G.; Wellington.
Law.
Romig, Ruth; Topeka.
Sociology, English, Philosophy.
Root, Esther L.; Olathe.
English, Journalism.
Rose, Frederica (Mrs.); Dunlap.
Music, Public Speaking.
Rose, Marion M.; Fort Scott.
Education.
*Roth, Jesse E.; *Lamoni, Iowa.*
Mathematics.
Rourke, George W.; Topeka.
Hispanic Language, Romance Language, Economics, Mathematics.
Rowles, Laura H.; Wichita.
Journalism, Public Speaking.
*Rudolph, Rose.
Music.
*Rumberger, Armena; Lawrence.
English.
*Runnion, Ray; Arcadia.
Journalism, Economics, English, Psychology.
*Russell, Marie; Scott City.
Economics, English, Philosophy.
Sample, Sarah E.; Eureka.
Education.
Sandborn, Grace; Scandia.
Education, Physical Education, Sociology, Philosophy.
Satterwhite, Joel H.; *Kansas City, Mo.*
Education.
*Saunders, Seymour G.; Lawrence.
Chemistry.
Scalapino, Hazel (Mrs.); Everest.
Music, English.
Scalapino, William; Everest.
Education, Music.
Schaplowsky, Andrew; Halstead.
Botany.
Scheer, George E.; Kansas City.
Education.
*Schick, Fern; Lawrence.
Economics, Entomology, Sociology, English, Music.
Schmidt, Andrew B.; Inman.
Education.
*Schnitzler, Fritz W.; Wichita.
Physiology, Medicine.
*Schumann, Margaretha; Lawrence.
Zoölogy, Education.
Schwegler, Raymond A.; Lawrence.
Zoölogy.
Sebring, Thelma; *Nowata, Okla.*
Music.
Seeberg, Abe; Rosedale.
———.
Semon, Florence M.; Lawrence.
Public Speaking, Sociology, Education.
*Shannon, Winifred; Iola.
English, Romance Language.
Shaw, William J.; *Cleveland, Mo.*
Chemistry.
*Sheffrey, David L.; Wichita.
History, Political Science, English, Economics.
Sheldon, Peryl; Holton.
English, Sociology.
*Shelton, E. P.; Lawrence.
Mathematics.
*Shinn, Henry A.; Lawrence.
Law.
Shire, Robert L.; Lincoln.
Chemistry.
*Shire, S. Ruth; Lincoln.
English.
Shores, Minnie T.; *St. Louis, Mo.*
Romance Languages, Home Economics, Economics.
*Shout, Leland M.; Lawrence.
Romance Language, Hispanic Language, Public Speaking, Philosophy.
*Shultz, Himie J.; *Kansas City, Mo.*
Public Speaking, Sociology.
Shure, Manuel M.; *Kansas City, Mo.*
Sociology, Economics, Psychology.
*Silliman, Joseph B.; Lawrence.
Chemistry, English.
Silliman, Kathryn S.; *Burlington, Vt.*
Education, Literature, Spanish, Philosophy.
*Simmonds, Wayne W.; Lawrence.
Qualitative Analysis.
Simmons, Mary E.; Cottonwood Falls.
Education, Public Speaking.
*Simon, Carl L.; Preston.
English, Economics.
Simpson, Charles H.; Cassoday.
Education, Philosophy.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

Simpson, Ethel H.; *Warrensburg, Mo.*
Education.
*Skilton, Helen Marie; Lawrence.
Romance Language, Drawing and Design.
*Slaughter, Robert Fields; Tonganoxie.
Chemistry.
Sloan, James C.; Emporia.
Education, Sociology.
*Smart, Carolee; Lawrence.
Hispanic Languages.
*Smiley, Ruth (Mrs.); Lawrence.
Psychology, Hispanic Languages, English, Philosophy.
*Smiley, Stanton L.; Lawrence.
Law, History.
Smith, Bert C.; Pawnee Rock.
Physical Education, Education.
*Smith, Emily P.; Sharon.
Sociology, Education, Zoölogy, Physical Education.
Smith, Erma A.; Sharon.
Physiology, Chemistry, Bacteriology, Journalism.
Smith, Ethel; Lawrence.
Education, Sociology.
*Smith, Frederick A., jr.; *Lamoni, Iowa.*
Chemistry.
Smith, Glenn D.; Fredonia.
Chemistry.
Smith, Grant B.; Lawrence.
English, Chemistry.
*Smith, Harold D.; Haven.
Chemistry.
*Smith, Hazel; Lawrence.
Drawing and Design, Home Economics.
Smith, Hazel Valeria; *Springfield, Mo.*
Education, English.
*Smith, Howard V.; Burlingame.
Chemistry.
*Smith, Vera.
Zoölogy.
*Smith, Wint; Mankato.
Law, English.
*Smith, Zuma Z.; Kansas City.
English, Education.
*Snart, Fred G.; Grinnell.
Chemistry, Economics.
Snoddy, Clarice A.; Burlingame.
English, Sociology.
Snow, Riley E.; Miltonvale.
History.
Snyder, Gladys; Columbus.
Physical Education, Sociology.
*Snyder, Ivan V.; Lawrence.
Philosophy, Education, Bacteriology.
Sopher, M. Myrtle; Topeka.
Education.
Sowder, Charles; Toronto.
Journalism, English.
*Spalding, Wilber B.; Wabaunsee.
Anatomy.
Spangler, Irma B.; Lawrence.
Economics.
*Speck, Homer L.; Lawrence.
Spanish.
Spence, Elizabeth L.; Barnes.
Fine Arts, Economics.
Spicer, Miriam R.; Lawrence.
Chemistry.
*Sproul, William M.; Lawrence.
Engineering.
Spurrier, Leo; Kingman.
Education, Psychology, Philosophy.
*Stanley, Constance E.; Lawrence.
Music.
*Stanley, Dorothy J.; Lawrence.
Hispanic Language, Education.
Stanley, Georgiana F.; Eudora.
English, Music.
*Stark, L. H.; Lawrence.
Public Speaking, Physical Education, Education.
Staton, Estella I.; Baxter Springs.
Hispanic Languages, Romance Languages, Zoölogy.
Statton, Pauline; Minneola.
Drawing and Design.
Stauffer, Martin Edward; McPherson.
Psychology, Education, Physical Education.
*Stearns, Arnold W.; Lawrence.
English.
Stein, Rachel; Smith Center.
Physical Education, Education, Psychology, Economics.
*Steininger, Herbert M.; *St. Joseph, Mo.*
Chemistry, Psychology, Economics.
*Stephenson, Walter; *New York City.*
Biological Chemistry.
*Stevens, Rachel; Lawrence.
Fine Arts, English.
Stevens, Richard B.; Lawrence.
English, Hispanic Languages.
*Stevens, Roy U.; *Kansas City, Mo.*
Medicine.
*Stevenson, Clyde; Lawrence.
Chemistry.
*Stevenson, Edward; Lawrence.
Zoölogy.
Stevenson, Geo. R.; Lawrence.
History, Hispanic Language.
Stevenson, Kenneth; Lawrence.
Mathematics, History.
*Stevenson, Robert M.; Salina.
Law.
Stewart, Grace M.; Rantoul.
Entomology, Botany.
*Stewart, John R.; Hutchinson.
Chemistry.
Stewart, Margaret A.; Baxter Springs.
History, Sociology.
Stewart, Olive M.; Baldwin.
Ancient Language, Journalism.
*Stillwell, Robert J.; Lawrence.
Physics, Anatomy.
*Stimmel, Robert M.; Mullinville.
Chemistry.
*Stone, Anna; Lawrence.
Chemistry.
*Stone, Henry N.; Lawrence.
Economics, History, Sociology.
Storms, James W.; *Kansas City, Mo.*
Education, Sociology.
Story, Le Roy G.; Lawrence.
Chemistry, Romance Languages.
Strem, Carl E. S.; Lawrence.
Biology.
*Strong, Kathryn; Lawrence.
Spanish.
Subera, Otto; Caldwell.
Botany, Entomology.
*Sudsberry, Marvin L.; Lawrence.
Chemistry.
Sughrue, Cecil; Dodge City.
Hispanic Language, Sociology.
*Sutton, Edgar M.; Beloit.
Physiology, Anatomy.
*Swanson, Arthur M.; *Kansas City, Mo.*
Education.
Sweet, Cyre B.; Lawrence.
Home Economics, Public Speaking.
Sweigart, Gladys N.; Lawrence.
English, Education.
Swenson, Amy; Topeka.
Public Speaking, Journalism, Physical Education.

* Also in regular session.

SUMMER SESSION, 1920—*Continued.*

*Swenson, Clarence G.; Lawrence.
Sociology, Philosophy, Law.
Taylor, Chloetta; Lawrence.
Music.
Taylor, Daisy M. B.; *Kansas City, Mo.*
Music.
Taylor, George E.; Burlingame.
Sociology, History.
Taylor, James R.; Oskaloosa.
Economics.
Taylor, Ruby E.; Fort Scott.
History, Education.
Teetor, Josephine; Ottawa.
Education, Mathematics, Zoölogy.
*Tenney, Asa C.; Lawrence.
Chemistry.
*Terrell, Eppinetta V.; Lawrence.
English.
*Testerman, Minnie; Lawrence.
Chemistry, Philosophy, Education.
*Thomas, Aileen L.; Lawrence.
Romance Languages.
Thomas, Edith H.; Lawrence.
English.
Thomas, Mary H.; Lawrence.
Public Speaking.
Thompson, Daisy Ruth; Sterling.
Chemistry.
*Thompson, Edward Albert; Topeka.
Chemistry, Physics.
*Thompson, Homer; Wichita.
Chemistry.
Thompson, Roy B.; Lawrence.
History.
Thompson, William R.; Halstead.
Education, Economics.
*Thurman, Josephine; *Joplin, Mo.*
Economics, Education.
*Thurston, Helen; Kansas City.
English, Education.
Tieszen, Abe F.; Newton.
Education, Sociology.
*Timmins, Vaughn E.; Kansas City.
English, Sociology, Romance Languages, Psychology.
Todd, Susan E.; Tonganoxie.
Sociology, English.
Tomlinson, J. R.; Independence.
English, Education.
Tompkins, M. H.; *Kansas City, Mo.*
Education, Sociology.
Tonar, Agnes; Leavenworth.
Fine Arts, Music.
*Toomey, Richard A.; Lawrence.
Economics, Political Science, Law.
*Towne, Roy; Topeka.
French.
Traster, Stella; Fredonia.
Education.
Travis, Mrs. Emily M.; Independence.
Home Economics, History, Physiology, Entomology.
Tummel, Theresa; Lawrence.
Sociology, Education.
Underhill, Mary E.; Lawrence.
Bacteriology.
*Underwood, Edna; Lawrence.
Drawing and Design.
*Urie, Rolland W.; Ramona.
Bacteriology.
*Vail, Helen R.; Lawrence.
English, Sociology, Political Science, Education.
Van Meensel, Alice; Lawrence.
Romance Languages, French.
Van Slycyk, Willard N.; Iola.
Education.
Vaughn, Frances; Scott City.
Chemistry.
Vaughn, Hugh J.; Winfield.
Journalism, English, Sociology.
*Voorhees, Claude H.; Lawrence.
Law.
*Waggener, Balie P.; Atchison.
Law.
*Waggener, Mark Spurr; Atchison.
English, Economics.
*Wahlemaier, Floyd C; Kansas City.
Mathematics, Sociology, Physics.
Wahlin, E. Charlotte; Lindsborg.
Education.
Wahlin, Vendla; Lindsborg.
Education, French.
Wallace, Dee M.; *Edmond, Okla.*
Sociology, Economics.
Walling, Grace; Lawrence.
Education.
Walling, Via; Lawrence.
Education, Sociology.
Walter, Mabel; Harper.
Music.
Walton, Harriette S.; Leavenworth.
Philosophy, Sociology.
Ward, Winifred E.; Lawrence.
Sociology, Bacteriology, Public Speaking.
Warner, Elizabeth D.; *Madison, Wis.*
Journalism, Mathematics.
Watkins, George E.; McPherson.
Economics, Sociology.
Watkins, Mary Elizabeth; Lawrence.
Education, History.
Watkins, Orpha A.; McPherson.
Psychology, Philosophy.
*Watson, George N.; Lawrence.
Anatomy.
†Waudby, George E.; Gorham.
Physics.
*Weaver, James B.; Belleville.
Chemistry.
*Webster, E. B.; Kansas City.
Entomology, Zoölogy.
*Webster, Paul R.; Larned.
Physics, Anatomy.
Wedell, Emilie; Lawrence.
Education, Physical Education, Sociology.
*Weed, Mahlon S.; Lawrence.
Journalism, Economics, Sociology, English.
*Welch, Lena; Fort Scott.
Psychology, Sociology.
Wellman, Mabel L.; Oskaloosa.
Education, Physiology.
Welton, Grace M.; Princeton.
Education, Home Economics, Psychology.
Welty, Donald R.; Lawrence.
Zoölogy, Sociology.
Wesley, Mae; Great Bend.
Physiology, Sociology.
Westervelt, Theodore R.; Topeka.
Sociology, Physical Education.
*Westpheling, Mary E.; *Los Angeles, Cal.*
Economics, Mathematics.
Weyer, Leonora A.; *Kansas City, Mo.*
Education.
Whaley, Jessie; Lawrence.
Chemistry.
Wheeler, Ethel; Waverly.
English.

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* Also in regular session.
† Deceased.

SUMMER SESSION, 1920—*Concluded.*

Wheeler, Frances; Topeka.
Education, Psychology.
White, Edith K.; Lawrence.
Entomology.
White, G. R.; Oswego.
Education.
*White, Oba B.; *St. Joseph, Mo.*
Chemistry.
*White, Oliver W.; Solomon.
Mathematics, Physiology, Chemistry.
Whitesell, Faris D.; *W. Terre Haute, Ind.*
History, Romance Language, Philosophy, English.
Whitney, Lucy G.; *Kansas City, Mo.*
English, Education.
Wieters, Alfred H.; Lawrence.
Bacteriology.
Wilcox, Roy A.; Lawrence.
Chemistry.
Wilhoit, Mrs. Helen M.; Manhattan.
Home Economics, Physics.
*Wilhoit, John W.; Manhattan.
Chemistry.
Williams, Lloyd; Lawrence.
Entomology.
Williams, Sarah E.; Lawrence.
Hispanic Language, History.
*Willis, Vergil E.; Iola.
Law.
Wilson, Elizabeth K.; Beloit.
Education.
Wilson, Fern F.; Coffeyville.
Education, English.
Wilson, Gail E.; Beloit.
History, English.
Wilson, Glen E.; Lawrence.
Chemistry.
Wilson, Hazel E.; Leoti.
Education, Music.
Wilson, Mary L.; Lawrence.
Chemistry, Hispanic Language.
*Wing, Monta E.; ————.
Geology.
Wingate, Marguerite P.; Eudora.
Journalism.
Wolf, Eva H.; Kansas City.
Music, Psychology.
Wolfe, Grace; Topeka.
Botany, Entomology.
Wolverton, Josephine; Holton.
Fine Arts.
*Wood, Isabel M.; Lawrence.
Sociology.
Woodward, Parke Harold; Wichita.
Physiology.
Woodman, Sidney M.; Pleasanton.
Education.
Woods, Ellis W.; *Tulsa, Okla.*
Public Speaking, Education.
Woodward, Clarkson R.; Lawrence.
Law.
Woodward, George J.; Lawrence.
Romance Language, Philosophy, Physical Education.
Worthington, Paul W.; Ottawa.
Education, Economics.
Wright, Chas. C.; Smith Center.
Education.
Wright, J. Eugene; Barnes.
Music, History, Physical Education.
Wycoff, Glenn L.; Conway Springs.
Education.
Wynn, Edith A.; Lawrence.
Education.
*Yang, Shu Ya; *Hunan, China.*
Economics, Education.
Yegge, W. Bernard; *Denver, Colo.*
Physiology, Anatomy.
Young, Myrtle M.; *Kansas City, Mo.*
Education, Sociology.
*Young, Nellie M.; Seneca.
Mathematics, Sociology.
Youngquist, Freda; Blue Rapids.
English, Physical Education.
Youngquist, Hazel N.; Blue Rapids.
English, Physical Education.
Zenor, Helen S.; Lawrence.
Economics, Home Economics.
*Ziesenis, Katherine S. (Mrs.); Lawrence.
Sociology, English, Physiology, Philosophy.
Zook, Dottie E.; Lawrence.
Education.

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* Also in regular session.

ROSTER OF MEN IN THE R. O. T. C. UNIT.

SECOND YEAR BASIC.

Agcaoili, Vincent.
Ainsworth, Alfred.
Bedell, Gaylord.
Bendit, Louis C.
Bentley, Wayne H.
Bosworth, Charles D.
Boyer, Samuel A.
Bracken, George L.
Bradley, Cecil.
Bredberg, Louis E.
Childs, Kenneth D.
Chubb, Worth L.
Clardy, Elgin F.
Clough, Arthur M.
Coghill, James T.
Darby, Phil N.
Dixon, Charles.
Ely, Harold D.
Farrell, Milton J.
Felton, Albert G.
Gilbert, Robert.
Graves, Arthur A.
Hale, Travis.
Hawley, George.
Herron, Ronald.
Hockett, Loyd J.
Holliday, Ralph M.
Horsman, Raymond.
Hughes, Paul B.
Hughey, Thomas M.
James, Wallace M.
Jones, Arthur L.
Jones, Wilbur M.
Justice, Robert J.
Kramer, John C.
Lacerte, Wilfred J.
Lamb, Paul A.
Larkin, Willard.
Lyne, Elmer.
MacMurray, A. Cooper.
Markley, Max C.
Martin, Murray E.
Maxfield, George.
Mills, W.
Mills, N.
McPherson, William L.
Oakes, Clarence P.
O'Keefe, Keefe.
Parrott, Ivo.
Patterson, Coy B.
Pommerenke, Wesley F.
Pringle, Roy D.
Ranus, Don H.
Reilly, William D.
Rhinehart, Cleo A.
Schanze, August E.
Schmidt, Henry G.
Schwinley, Keith E.
Shane, Henry K.
Smith, L. Donald.
Sparks, Harold.
Thorne, Francis X.
Treu, William L.
Ver, Raymond.
Vincent, Stillman P.
Wheeler, James A.
White, Lester A.

FIRST YEAR BASIC.

Albright, Winfred.
Aldrich, James F.
Allen, Ulmar H.
Armstrong, Willard.
Ashbury, Harry.
Bennett, Arthur H.
Berry, Harry L.
Blair, Hugh M.
Brinkman, John.
Brown, Marshall W.
Bryant, Joseph.
Butler, Paul L.
Chamberlain, Clifford M.
Cook, Robert.
Corn, Dennis.
Cox, Charles.
Davis, Ernest.
Dodd, Carlton E.
Dowd, Benjamin.
Edwards, J. C.
Espenlaub, Frederic.
Farr, William.
Farrar, Walter.
Finch, Harold.
Firebaugh, Howard.
Flick, Jesse.
Flitner, Howard.
Flores, Jose.
Fortney, Ralph.
Francis, DeVaughn.
Frederick, Carl G.
Freshman, Myer.
Fritts, Harold.
Gallagher, Eugene.
Gerner, George.
Gordiner, Virgil.
Hackney, Rodger.
Harner, Olin.
Harrison, Paul L.
Henninger, Carl.
Higgins, Donald.
Hills, John.
Hinch, Richard.
Jennings, Frank.
Johnson, Paul.
Johnson, Roy.
Kingsley, Richard.
Kregar, Scott.
Lumasag, Edilberts.
Manson, Arthur.
Mason, Eugene.
May, Guy.
McAfferty, J. F.
Mikesel, J. B.
Miller, Bertram.
Motherstead, Arthur.
Pearce, Leo J.
Pigg, James F.
Pimental, Rufino.
Pontius, Herman.
Postlewaite, Donald.
Pratt, Lavern.

R. O. T. C. Unit, Second Year—*Concluded.*

Reinken, Herman.
Robertson, Douglas.
Rost, Francis.
Roth, Jesse.
Royce, George.
Scafe, Dennis.
Schafer, Harold.
Scott, Paul.
Sheppard, Owen.
Sheridan, Stephen.
Shields, Floyd.
Shultize, Quido.
Smeltzer, Vivian.
Sparks, James.
Steel, John.
Stugard, James.
Sweeney, Edward.
Trelfals, James.
Van Houten, Wendell.
Vaugh, Thomas.
Whiting, Leo.
Wilbur, George.
Williams, Henry.
Wyatt, Ralph.

OREAD TRAINING SCHOOL—FIRST YEAR BASIC.

Archer, Irvin M.
Bryant, Dale.
Danield, Thomas.
Franklin, Allen.
Kesler, C. L.
Mayor, Nazario B.
Wells, W. W.

ENROLLMENT 1920-'21.

Schools.	Men.	Women.	Total.
The Graduate School:			
Regular session	60	58	118
Summer session	77	73	150
The College of Liberal Arts and Sciences	1,471	1,146	2,617
Seniors	176	176	352
Juniors	194	195	389
Sophomores	331	235	566
Freshmen	497	344	841
Specials	273	196	469
The School of Engineering	723	15	738
Seniors	81	0	81
Juniors	106	7	113
Sophomores	215	4	219
Freshmen	249	2	251
Specials	72	2	74
The School of Fine Arts	86	320	406
Seniors	0	13	13
Juniors	3	11	14
Sophomores	6	58	64
Freshmen	11	81	92
Specials	66	157	223
The School of Law	241	9	250
Seniors	50	1	51
Middle	48	1	49
Juniors	99	4	103
Specials	44	3	47
The School of Pharmacy	68	15	83
Seniors	14	5	19
Juniors	24	1	25
Sophomores	11	2	13
Freshmen	17	5	22
Specials	2	2	4
The School of Medicine	129	26	155
Seniors	30	2	32
Juniors	19	2	21
Sophomores	30	0	30
Freshmen	49	2	51
Specials	1	1	2
Nurses	0	19	19
The School of Education	41	314	355
Seniors	21	111	132
Juniors	8	110	118
Sophomores	1	1	2
Freshmen	1	0	1
Specials	10	92	102
Total enrollment, regular session	2,819	1,903	4,722
Names counted more than once	470	572	1,042
Totals	2,349	1,331	3,680
Total enrollment, summer session, 1920	449	475	924
Summer students in regular session	224	154	378
Totals	225	321	546
Total Registration, 1920-'21	2.574	1.652	4.226

CLASSIFICATION OF STUDENTS.

BY KANSAS COUNTIES.

Allen	53
Anderson	36
Atchison	49
Barber	14
Barton	38
Bourbon	24
Brown	38
Butler	42
Chase	14
Chautauqua	13
Cherokee	32
Cheyenne	9
Clark	5
Clay	26
Cloud	27
Coffee	31
Comanche	6
Cowley	46
Crawford	45
Decatur	4
Dickinson	49
Doniphan	26
Douglas	1,104
Edwards	5
Elk	17
Ellis	10
Ellsworth	14
Finney	13
Ford	19
Franklin	51
Geary	13
Gove	4
Graham	12
Gray	6
Greenwood	15
Hamilton	6
Harper	20
Harvey	28
Hodgeman	1
Jackson	30
Jefferson	30
Jewell	42
Johnson	43
Kearny	3
Kingman	11
Kiowa	21
Labette	39
Lane	8
Leavenworth	94
Lincoln	23
Linn	37
Logan	3
Lyon	28
Marion	33
Marshall	25
Meade	11
Miami	35
Mitchell	14
Montgomery	71
Morris	13
Morton	4
McPherson	40
Nemaha	22
Neosho	50
Ness	4
Norton	11
Osage	18
Osborne	20
Ottawa	36
Pawnee	9
Phillips	7
Pottawatomie	14
Pratt	25
Rollins	9
Reno	58
Republic	18
Rice	27
Riley	16
Rooks	6
Rush	5
Russell	20
Saline	38
Sedgwick	123
Seward	10
Scott	7
Shawnee	113
Sheridan	2
Sherman	6
Smith	16
Stafford	32
Stevens	2
Sumner	41
Thomas	10
Trego	12
Wabaunsee	25
Wallace	6
Washington	21
Wichita	5
Wilson	39
Woodson	18
Wyandotte	246
Total	3,770

BY STATES AND COUNTRIES.

Arizona	1
Arkansas	3
California	2
Colorado	17
District of Columbia,	1
Georgia	3
Idaho	2
Illinois	12
Indiana	6
Iowa	13
Kansas	3,770
Kentucky	2
Massachusetts	1
Michigan	1
Missouri	272
Montana	3
Minnesota	1
Nebraska	3
New Mexico	10
New York	5
North Dakota	1
Oklahoma	61
Oregon	1
South Dakota	3
Texas	15
Vermont	1
Wisconsin	2
Wyoming	2
China	2
Japan	1
Philippines	7
Mexico	1
Russia	1
Grand total	4,226

OTHER INSTITUTIONS.

FROM WHICH STUDENTS WERE ADMITTED WITH ADVANCED STANDING, 1920-'21.

A. E. F.	3
Baker University	12
Bennet School	1
Bethany (Lindsborg)	2
Bethel	3
California University	1
Campbell College	1
Central College for Women (Mo.)	1
Central Wesleyan (Mo.)	1
Chicago University	2
Christian College (Mo.)	2
Clarendon College (Tex.)	1
Colorado Agricultural College	3
Colorado College	1
Colorado State Teachers College	2
Colorado University	11
Columbia University	3
Cooper College	3
Culver-Stockton	1
Cumnock School (Cal.)	1
Dartmouth College	1
Denver University	2
Evanston School of Music (Ill.)	1
Edmond Normal (Okla.)	3
Emporia College	4
Fairmount College	22
Fisk University	1
Florida University	1
Friends University	4
Garden City Junior College	3
George Peabody School for Teachers	1
George Washington (D. C.)	4
Graceland College (Iowa.)	1
Hamline University	1
Hardin College	1
Hays Normal School	4
Highland College	1
Hobart College	1
Idaho College	1
Illinois University	2
Iowa State College	5
Iowa University	1
Kansas City Polytechnic Institute	42
Kansas City University	1
Kansas State Agricultural College	30
Kansas State Normal	35
Kansas Wesleyan	7
Lasell Seminary	1
Lewis Institute	1
Lincoln Institute	1
Lindenwood College	15
Marquette University	1
Marysville Normal (Mo.)	2
Marysville Junior College	2
Michigan University	2
Midland College	2
Milton College	1
Miltonvale Wesleyan	1
Minnesota University	1
Missouri University	4
Monticello Seminary	1
Mt. St. Clare College (Iowa)	1
McPherson College	2
National Park Seminary	3
Naval Academy, U. S.	1
Nebraska University	2
Nebraska Wesleyan	1
New York State College of Forestry	1
Nickerson College	1
Northeastern Normal (Okla.)	1
Northeastern College	1
Northwestern University	2
Notre Dame	4
Oklahoma A & M College	1
Oklahoma City College	1
Oklahoma University	10
Oswego College	1
Ottawa University	16
Pacific, College of	1
Park College	1
Parsons College (Iowa)	1
Phillips University (Okla.)	2
Piedmont College (Ga.)	1
Pittsburg Normal (Kan.)	16
Pittsburg University	1
Rockford College	2
Rolla School of Mines	1
Rust University	1
St. Joseph Junior College	1
St. Mary of the Woods (Ind.)	1
St. Teresa Junior College	3
Santa Ana Junior College	1
Simmons College	1
Smith College	1
South Dakota School of Mines	1
Southeast Missouri Teachers' College	1
Southeastern Normal (Okla.)	1
Southwestern College (Kan.)	12
Springfield Normal (Mo.)	1
Stephens College (Mo.)	1
Stetson J. B. University	1
Syracuse University	1
Tabor College	1
Texas Christian University	1
Tsing Hua College	1
University of Philippines	4
Utah University	1
Valparaiso University	1
Vanderbilt University	1
Virginia Military Institute	1
Ward-Belmont	6
Warrensburg Normal (Mo.)	6
Washburn College	23
Washington State University	3
Washington University	1
Wesleyan University	1
Westminster College	1
Western Reserve	1
West Point	2
Wheaton College	1
Whitman College	1
William Woods (Mo.)	2
Wisconsin University	7
York College	1
Candidates	440
Institutions	124

FORTY-NINTH ANNUAL COMMENCEMENT,

June 8, 1921.

What is Life's Big Business?

Address: EDWIN MARKHAM, Honorary President of the Poetry Society of America.

CANDIDATES RECEIVING DEGREES.

Bachelor of Arts.

Adams, Marguerite; Lebanon.
Ainsworth, David; Wichita.
Alexander, Maye Marie; Lawrence.
Alter, Ada McClelland; Lawrence.
Anderson, I. Edna Louise; Lawrence.
Anderson, John Wesley; Lawrence.
Anthony, Laura Gladys; Le Loup.
Applegate, Aymee Agnes; *Barltesville, Okla.*
Armstrong; Housen Parr; Atchison.
Armstrong, Ruth Irene; McPherson.
Asher, Clinton Royce; St. John.
Bagby, Grace; Lawrence.
Baker, Fressa Sample; Wichita.
Bamberger, Bernice Fay; Fort Scott.
*Barnby, Herbert Alexander: Lawrence.
Barnes, John Roland; Lone Elm.
Barnett, Helen Regina; Rosedale.
Battersby, Editha Marie; *Kansas City, Mo.*
Baum, Theresa Rosa; Galena.
Bell, Francys Eola; Leavenworth.
Bennett, Arthur Harry, jr.; Topeka.
Bennett, Roy Sutton; Iola.
Berry, Merlin Smith; Mankato.
Blackburn, Glessie D.; Stafford.
Blair, Donald Calvin; Beloit.
Bleakley, Georgina E.; Lawrence.
*Boese, Adolph; Hillsboro.
Boyer, Guy Maxwell; *Kansas City, Mo.*
Boyle, Joseph Essig; Bennington.
*Branson, Mary Louise; Eureka.
Brietag, Emma M.; *Kansas City, Mo.*
Bridgens, Bernice Pearl; *Kan. City, Mo.*
Bronaugh, La Verne; *Kansas City, Mo.*
Brown, Irwin Schilling; Lawrence.
Browne, Marie Alberta; Lawrence.
Brubacher, Margaret; Wichita.
Brueck, William Thomas; Paola.
Brune, Frank Ezra; Lake View.
Burke, Lois Louise; Lawrence.
Burnett, Dorothy Lois; Linwood.
Burnett, Irma; Linwood.
Butcher, Fred Dunaway; Lawrence.
Calvert, Frederick William; Lawrence.
Carey, Walter Ray; Osage City.
Carlgren, Florence K.; Concordia.
Carlin, Helen Margaret; Salina.
Carroll, Matthew; Kansas City.
Carter, Esther Marian; Garden City.
*Carter, Jean Cranston; Lawrence.
Carter, Mary Ota; Chanute.
Case, Goldie Ruth; Arkansas City.
Case, Naomi Marie; Arkansas City.
Cates, Gladys; Iola.
Chain, Edna; Wichita.
*Chambers, Helen Louise; Lawrence.
Christmore, Esther Clare; Edna.
Christoff, Minnie; Kansas City.
Clark, Ethel C.; Lawrence.
Clark, Harry Ernest, jr.; *Kan. City, Mo.*
Cleveland, Lucile; Howard.
Cochran, Burt Emerson; Wichita.
Coghill, Robert DeWolf; Lawrence.
Coleberd, Robert Edward; Lawrence.
Convis, Dallas Laverne; Burr Oak.
*Cook, Julius Edgar; Lawrence.
*Cooper, Lloyd Frank; Hoxie.
Correll, Loretta Pauline; Atwood.
Crim, Virginia Dickinson; Lawrence.
Curl, Hobart Grant; *Orange, Cal.*
Dade, Emil Bryan; Nickerson.
Davis, Ruth; *Kansas City, Mo.*
Derge, Dorothy; Lebanon.
Earlenbaugh, Lawrence E.; Claflin.
Elvey, Christian Thomas; Coffeyville.
Engel, Dorothea; Lawrence.
Engel, Herman Busch; Lawrence.
Estes, Arlie Wilber; Hutchinson.
Eytchison, Vivian Belle; Onaga.
Faulders, Faith Amelia; El Dorado.
Felt, Margaret Rebecca; *Kansas City, Mo.*
Fengel, Jessie Frances; Abilene.
Ferris, Caryl Ray; McPherson.
Ferris, Florence Evelyn; Lawrence.
Firestone, Maurine Estelle; Anthony.
*Fish, Lillian Virginia; Lawrence.
Fitzgerald, Julia Marcella; Jamestown.
Fitzsimons, Catherine; *Kansas City, Mo.*
Flagg, Paul Eldridge; Lawrence.
Fleer, Emma Ida; Baldwin City.
Flynn, Frances Helene; Humboldt.
Foley, Catherine M.; *Kansas City, Mo.*
Fox, Lenore Sarah; Greeley.
*Frisbie, Edith Adelaide; Bonner Springs.
†Frye, Ora; Lincoln.
Fugate, Josephine; Lawrence.
*Garrison, Joseph Russell; Selma.
Gaskill, Grace Helen; Lawrence.
Gillis, Bessie Beatrice; Garnett.
Girard, Edward Green; Windom.
Graham, Eugene Broderick; Holton.
Graves, Alfred James; Lawrence.
Gray, Ralph Monzingo; Summerfield.
Greef, Albert Otto; Pittsburg.
Griffith, William Henry; Pratt.
Grimsley, Bernice; Burlington.
*Grossenbacher, Margaret; Bern.
Gunn, Everett; Nickerson.

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* Assigned to class of 1920. † Assigned to class of 1917.

BACHELOR OF ARTS—*Continued.*

Haelsig, Otto Herman; Eudora.
*Haines, Jean Rathbun; Galena.
Hall, John Austin; *Amsterdam, Mo.*
Hamilton, Shirley Gonzalez; Lawrence.
Hanna, Lois Margaret; Clay Center.
*Hanna, Marcus Albert; Lawrence.
*Hart, Helen; Wichita.
Hawkins, Mary Beatrice; *Lamar, Mo.*
Hayslip, Elizabeth Elmina; Lawrence.
Heath, Alan Earl; Salina.
Helwig, Ferdinand Christian; Kansas City.
Hill, Mary Muriel; *Kansas City, Mo.*
*Hill, Ormond P.; Lawrence.
Hitchcock, William Holten; Augusta.
Hoffman, Paul Davidson; Abilene.
Holland, Benjamin Leroy; Lawrence.
Holmberg, Corinne A.; Peabody.
Hoover, William Harold; Manhattan.
Hopfer, Otto Emanuel; Sylvan Grove.
Hostetter, Lucky Wingert; Wellsville.
Hubbard, Lena Irene; Minneapolis.
Huff, Bonnie Mae; Preston.
Hughes, Lawrence Douglas; Lawrence.
Hunter, Geneva Campbell; Lawrence.
Hunter, Julia Mary; Galena.
*Isenberger, Nate Perry; Salina.
Ishmael, Marjorie Ellen; Kiowa.
Jewett, John Mark; De Soto.
Joachim, Jerome; Lawrence.
Johnson, Thurston Leown; Lawrence.
Jordan, Ella Marie; *Cheyenne, Wyo.*
Jordan, Gladys Dolores; Glasco.
Keck, Kenneth Fielman; *Wapello, Iowa.*
Keefer, Kathryn; Olathe.
Keys, Hollis Dodge; Beloit.
Kiefer, Everett Duane; Lawrence.
Kistler, John Joseph; Alta Vista.
Klapmeyer, Florence; *Kansas City, Mo.*
Koehring, Dorothy May; Lawrence.
Kollmann, Jack Edward; *Kansas City, Mo.*
Kugler, Ernest William; Abilene.
Lacy, Blanche Mary; *Wakita, Okla.*
Lake, Inez; Lake City.
Law, Florence Mildred; Lawrence.
Lewis, Marion Florence; Lawrence.
Liggett, Winfield Freeman; Kansas City.
Little, Herbert Blenis; Lawrence.
Lonergan, Flora Estella; Topeka.
Lowry, Katherine Statler; *Kansas City, Mo.*
Mack, Alberta; Lawrence.
Magill, Van Hooper; Lawrence.
Malott, Deane Waldo; Abilene.
Marshall, Earl Elmore; Elk City.
Marshall, Vivian; Leon.
*Maupin, Oakland Lee; *Carrollton, Mo.*
Merritt, Florence Maude; Lawrence.
Miller, Blanche Helen; Lawrence.
Miller, Howard Leslie; Chanute.
Minger, Ethel Louise; Bern.
*Mitchell, Basil Lyman; Burlington.
Moren, Dorothy C.; Lawrence.
Morgan, Murzelle; Lawrence.
Morrison, Ralph Edwin; Lawrence.
McCurdy, Henry Benson; Lawrence.
McDonald, Ira Malcolm; Lawrence.
McFadden, Norma; *Nevada, Mo.*
McIntyre, George Franklin; Wichita.
McKinney, Marie M.; Hoxie.
McMurphey, John William; Madison.
McVey, Roy Vernon; Garnett.
Nelson, Marguerite; *Oklahoma City, Okla.*
Nichols, Helen Mavis; *Savannah, Mo.*
Nicholson, Helen Julia; Lawrence.
Nigg, Clara Ida; *Los Angeles, Calif.*
Oder, Catherine Louise; Lawrence.
*Oglevie, Rial Richardson; Burr Oak.
Olsen, Grace Marguerite; Lawrence.
Olsen, Mary Carolyn; Lawrence.
Olson, Helen Edith; Topeka.
Olsson, Elmer Linnaeus; Topeka.
Orr, Francis Currie; *Kansas City, Mo.*
*Owen, Seth Jenkins; La Cygne.
Paine, Lita Mae; Admire.
Parker, Knowlton; Robinson.
Pate, Clarence Hugh; Walnut.
‡Peard, Roger Wood; *Quantico, Va.*
Peck, Helen Jewel; Arkansas City.
Peckham; Edwina; Lawrence.
Philipp, Herman Joseph; Wichita.
Phillips, Jean; *Chickasha, Okla.*
Pittman, Clara Amanda; *Hooker, Okla.*
Platz, Charles Ruffel; Leonardville.
Porter, John Gill; Topeka.
Pounds, Donna Vivian; Coldwater.
Puffett, Dale Howard; Lawrence.
Pulliam, Paul Emmett; Lyons.
Pumphrey; Orpha; *Fort Worth, Tex.*
Rankin, Zella Margaret; *Albuquerque, N. M.*
Rarig, Lucile; Minneapolis.
*Reynolds, Olive; Holton.
Rhodes, Pauline Ann; *Hennessey, Okla.*
Rice, Anita Bertha; Lawrence.
Rife, Mildred; Winfield.
Rinehart, Hattie; Lawrence.
Ringle, Lloyd Clinton; Pittsburg.
Rising, Edna Rose; Lawrence.
Ritter, Cassandra; Iola.
Robinson, Cecelia Margaret; Lawrence.
Rogers, Whitson Golton; Wellington.
Rosenfield, Josephine Helen; *Oklahoma City, Okla.*
Rourke, George W.; *Kansas City, Mo.*
Royer, Beula Anna; Gove.
Runnion, Ray; Arcadia.
Sadler, May; *Kansas City, Mo.*
Sangster, Ford; Lyons.
Schafer, Sidonie Pauline; McPherson.
*Schick, Ferne Louise; Lawrence.
Schumann, Margaretha; Lawrence.
Schwartzkopf, Edward A.; Bison.
Scott, Anna Louise; Burlington.
*Scott, Eva Mabel; Solomon.
Shaklee, Marie; *Watonga, Okla.*
Shannon, Winifred; Iola.
Shaw, Verna Mae; McPherson.
Sheppard, Reba Ellen; *Lamar, Mo.*
Shire, Sara Ruth; Lincoln.
Shout, Leland; Lawrence.
Simon, Carl Ludwig; Preston.
*Smith, Bert Cyrus; Pawnee Rock.
Smith, Bessie; Pratt.
Smith, Meda Estella; Paola.
Smith, Xenophon Palmer; *Omaha, Neb.*
Smith, Zuma Zeda; Kansas City.
Snyder, Ivan Virgil; Lawrence.
Songer, Irene Maud; *Kansas City, Mo.*
Spencer, Ray Paul; *Kansas City, Mo.*
Stacey, Frank Baker; Leavenworth.
Stannard, Lillian May; Emporia.
Stauffer, Nina Aldean; Randall.
Steininger, Herbert Marvin; *Kan. City, Mo.*
Steininger, Vera Margaret; *Kan. City, Mo.*
*Stewart, Margaret Anne; *Miami, Okla.*
Stiver, Una Mary; Council Grove.
Stone, Anna; Lawrence.
Strand, Lillie Oliva; Independence.
Strickland, Frances Wright; Wichita.
Sweet, Cyra; *Kansas City, Mo.*
Swenson, Gilbert Oscar; Topeka.
Syster, Ruth Isabelle; Hiawatha.
*Taylor, George Emett; Burlingame.
Teeter, Clifford Loraine; Dodge City.
Terrell, Eppinetta Valeria; Lawrence.

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* Assigned to class of 1920.
‡ Assigned to class of 1909.

BACHELOR OF ARTS—*Concluded.*

*Tester, Allen Crawford; Lawrence.
Thompson, Helen Louise; *Kansas City, Mo.*
Tiemann, Frieda Eulalia; Woodbine.
*Timmins, Vaughn Earl; Kansas City.
Tomlinson, Victor Rees; Independence.
*Travis, Emily Miller; Independence.
Trusdale, Grace De; Emporia.
Tucker, John Hicks; Lawrence.
Uhrlaub, Ernest August; Lawrence.
Vail, Helen Robinson; *St. Joseph, Mo.*
*Vaughn, Hugh Jerome; Winfield.
Walbridge, Caroline K.; Russell.
*Ward, Winifred Emily; Lawrence.
Washington, Herschel L.; Leoti.
Wasson, Margaret E.; *Cleveland, Okla.*
*Watkins, Mary Elizabeth; *St. Joseph, Mo.*
Weibel, Nadene; Lawrence.
Welsh, Floyd Elmo; *Alva, Okla.*
Wenzel, Anna Marie; Herndon.
Wilkerson, Vernon A.; *Kansas City, Mo.*
Willems, Leonard C.; Lansing.
Williams, Esther; Pawnee Rock.
Williams, Harriett Leah; Preston.
*Wilson, Gail Elery; Beloit.
Wineinger, William W.; Fort Scott.
Wirth, Bernard A.; Red Wing.
Wishard, Mary Elizabeth; Iola.
Young, Nellie Mary; Seneca.
Young, Percy; Lawrence.
Ziesenis, Katherine Stuart; Lawrence.

Bachelor of Science in Medicine.

*Beyer, Martin R.; McPherson.
Black, William Byron; *Kansas City, Mo.*
Blount, Justin A.; Larned.
Dewey, Charles Homer; Elk City.
Emerson, Ralph; Osborne.
Helman, Richard Graham; *Kan. City, Mo.*
*Hershey, Lynn N.; Abilene.
*Kellogg, Ernest Clinton; *College View, Neb.*
Lee, Frank Nelson; Kansas City.
*Lutz, Elizabeth Jane; Holton.
Ross, Gilson A.; Delphos.
§Terrill, Harold James; Robinson.
Weltmer, Ward Wallace; Smith Center.
Willhelmy, Ellis W.; Kansas City.

Bachelor of Science.

Messmore, Harold Eli; Morrill.

Bachelor of Science in Architecture.

Bihr, Samuel Wilks, jr.; Lawrence.
Chandler, George Leland; Topeka.
Icenhower, William M.; Lawrence.
Soxman, Lee Forrest; Lawrence.

Bachelor of Science in Architectural Engineering.

Icenhower, William M.; Lawrence.

Bachelor of Science in Chemical Engineering.

*Etenzhouser, Russell D., jr.; *Independence, Mo.*
Kanode, Ralph Dewey; Topeka.
Kennedy, Miles Simon; Benedict.
Lynn, George; Lawrence.
Martling, Francis Hodgin; Kansas City.
Means, Dwight Raymond; Ottawa.
Merritt, Paul Prowers; McCune.
White, Oliver Wendel; Solomon.

Bachelor of Science in Civil Engineering.

Austin, Verle Lorraine; *Oldham, S. Dak.*
Bennett, Clarence; Stafford.
*Boltz, Clarence Weaver; Lawrence.
Bradshaw, George Watson; Randall.
*Fox, Paul Samuel; Lawrence.
Googins, Augustus L.; Fredonia.
Judkins, Bert Chaffin; Lawrence.
Mason, Ray Benjamin; Lawrence.
Mott, Thomas Mitchell; *Kansas City, Mo.*
Nettels, George Edward; Topeka.
Pendergast, Hugh Joseph; *Kan. City, Mo.*
Remmers, George Lawrence; Marion.
Ryan, Royal Rufus; Chapman.
Spangler, Karl Bauman; Lawrence.
Tracey, John Charles; Pittsburg.

Bachelor of Science in Electrical Engineering.

Anderson, Harold William; *Kansas City, Mo.*
Beltz, Willis Henry; Weir.
Cline, Glen William; Fort Scott.
Colt, Donald D.; *Kansas City, Mo.*
Cronk, Seymour Hayes; Stafford.
Davis, John Clark; Salina.
Degering, Carl Adolph; *Florence, Colo.*
Ege, Howard Davis; Lawrence.
FntzGerald, Edgar James; Lawrence.
King, Francis Myron; Ottawa.
*Mason, Warren Perry; Lawrence.
McGee, Richard Royal; *Kansas City, Mo.*
Perkins, Lucius Junius; Lawrence.
Quinlan, Amos Lawrence; Linwood.
Stevenson, Clyde Duncan; Lawrence.
Thompson, Edward Albert; Topeka.
Todd, John Malcolm; Fort Scott.

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* Assigned to class of 1920.
§ Assigned to class of 1919.

Bachelor of Science in Mechanical Engineering.

Bonebrake, Frederick T.; Topeka.
*Bown, William Forest; *Kansas City, Mo.*
Bunn, John William; Lawrence.
Johnson; Martin Marion; Salina.
Moshchansky, George A.; *Nizhni-Novgozod, Russia.*
Neubauer, Jesse Laurence; Lawrence.
*Randolph, William Marcus; Lawrence.
Robertson, John Milton; *Silver City, N. M.*
Wahlstedt, John Robert; *Kansas City, Mo.*
White, Karl Hardy; *Takoma Park, D. C.*

Bachelor of Science in Mining Engineering.

Bell, Arnold Arch; Great Bend.
Holland, Paul Oscar; Pleasanton.
Reid, Theodore Carey; Stafford.

Bachelor of Laws.

Adair, Ruth May; Lawrence.
Bailey, Clarence Emmitt; *Ramona, Okla.*
*Bell, Alexander Rankin, jr.; Chetopa.
Banker, Glenn Victor; Russell.
Bauman, Edwin Rudolph; Wellington.
Benton, Willard Merriam; Kansas City.
Blake, Harold Lore; Wichita.
Carper; Clay Charles; Minneapolis.
Colter, Lloyd Clarence; Chetopa.
Davison, William McKinley; St. John.
Evans, Carlos William; Tonganoxie.
*Fink, Floyd Melvin; Wichita.
Flagg, Donald Sergeant; Lawrence.
*Floyd, Dean Lewis; Sedan.
Fulton, Hamilton R.; Sabetha.
Goodwin, Harold Wilford; Woodston.
Gorrill, Clarence Marshall; Lawrence.
*Gregory, Omar Dwight; Alton.
*Hobart, Charles Harrison; Lawrence.
Joslin, William Robert; Hugoton.
*Keeven, John Patrick; Wathena.
Koehler, Jerome Sheridan; *Muskogee, Okla.*
Levi, Philip Louis; Kansas City.
Lonborg, Arthur C.; Horton.
Mitchell, John Wesley; Perry.
Monteith, John Nelson; *Kansas City, Mo.*
Murphy, Albert P.; Lawrence.
McElroy, John Willis; *Indianapolis, Ind.*
McGinnis, Walter Fletcher, jr.; El Dorado.
Perkins, Oscar Floyd; Meade.
Randall, Charles Bromfield; Lawrence.
Rich, Horace Hakes; Coldwater.
Robertson, Robert Lorin; Lawrence.
Schell, Oliver Wendell; Lawrence.
Sherwood, William Jesse; *St. Joseph, Mo.*
Shillerston, Dewey; Lawrence.
Simon, Loren Dale; Seneca.
Slonaker, John Orin; Lawrence.
Smiley, Stanton Lambert; Lawrence.
Smith, Elbert Francis; Ellinwood.
Stringfellow, Fred Conway; McPherson.
Temple, George Robert; Wichita.
Toomey; Richard Allen; Lawrence.
Vance, Chester Dixon; Lebanon.
Washington, Herschel L.; Leoti.
Welch, Kenneth; Emporia.
Wild, George Roeder; *Kansas City, Mo.*
Woodward, Dean Victor; Delphos.

Bachelor of Music.

*Creek, Olive May; *Kansas City, Mo.*
Gleed, Joanna; Topeka.
Hale, Thelma Belle; Yates Center.
Jackman, Laura Susie; Wichita.

Bachelor of Painting.

Batcheller, Norma; Lawrence.
Hargett, Marion Dudley; *New Albany, Ind.*

Bachelor of Design.

Fulks, Josephine; Turon.
Seitz, Bessie Louis; *Syracuse, N. Y.*
Shafer, Josephine; Colby.

Teacher's Certificate in Piano.

*Bair, Ava Maryland; Waverly.

Artist's Certificate in Piano.

*Rudolph, Rose (Mrs.); Lawrence.

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* Assigned to class of 1920.

Teacher's Certificate in Public School Music.

Anderson, Mabel; Vesper.
Atwood, Marguerite; Caney.
Chapman, Doris Anne; Conway Springs.
Clark, Amy B.; Lawrence.
Constant, Olive Jane; Lawrence.
Fisher, Mary Marguerite; Caney.
Garner, Esther Marie; Haviland.
*McBride, Rheba; Onaga.
*McDougal, Vida Lucille; Lawrence.
Neely, Vera Augusta; Cimarron.
Nelson, Gladys Helen; Lawrence.
Patterson, Doris Kathryn; Lawrence.
Riley, Frances; Soldier.
*Scott, Hazel Louise; Garnett.
Weed, Helen Irene; Lawrence.

Teacher's Certificate in Public School Art.

Batcheller, Norma; Lawrence.
Brophy; Athol Beatrice; *Kansas City, Mo.*
*Burkey, Ruth; Arkansas City.
Fulks; Josephine; Turon.
Shafer, Josephine; Colby.
Stephens, Isabel W.; Atchison.

Bachelor of Science.

Coons, Elsie May; Lawrence.

Pharmaceutical Chemist.

Thompson, Homer; Wichita.

Graduate in Pharmacy.

Berg, Thomas Philip; Syracuse.
*Charles, Russell; Attica.
Dailey, Katie Ray; Douglass.
*Irvine, Joseph Louis; White Cloud.
*Lynn, Laurine Esther; Mankato.
Miller, Franklin Louis; Dodge City.

Doctor of Medicine.

Anderson, Forrest Nelson; Lawrence.
Beavers, Benjamin Franklin; *Decatur, Ind.*
Bennie, Herbert Stewart; Almena.
Campbell, Robert Findley; Meade.
Cowles, George Edwin; Wichita.
Cox, Wilfred; Sharon Springs.
Dixon, Claude Frank; *Kansas City, Mo.*
Emerson, Ralph Waldo; Osborne.
Friesen, Herman Elmer; Hillsboro.
Gestring, Hugh Arthur; Kansas City.
Gray, Helen Emily; Paxico.
Hurwitt, Samuel Jerome; *Kansas City, Mo.*
Johnson, Emsley Thomas; Lawrence.
Kaufman, Hester Juanita; *Kansas City, Mo.*
*Marquis, George Slavens; *Colfax, Iowa.*
Mott, James M.; Kansas City.
McEwen, Fred John; Iola.
McWilliams, Cline VanSant; Rosedale.
Newman, Carl Sullivan; Dighton.
Rannie, Paul R.; *Independence, Mo.*
Sandidge, Allen Wilson; Mulberry.
*Stephens, Brooks Palmer; *Kansas City, Mo.*
Stevens, Roy U.; Lawrence.
Terrill, Harold James; Robinson.
Thiessen, Edward Herman; Solomon Rapids.
Walz, Thomas Julius; Kansas City.
Welker, Joseph Edward; Lawrence.
Weltmer, Ward; *Kansas City, Mo.*
Wilson, Fernando Ivanhoe; Lawrence.

Certificate for Graduate Nurse.

Bauerfind, Neva Una; Minneapolis.
Beeson, Natoma.
Cook, Ola Rae; Stockton.
Hendrickson; Lenore Ethel; *Hyde Park, Cal.*
Hunter, Ruthegene Marcia; *Geneseo, Ill.*
Jones, Mabel Belle; Altamont.
Koken, Maude; *Kansas City, Mo.*
Lonneke, Grace Estella; Arkansas City.
Main, Emily Upshur; Arkansas City.
McDaniels, Helen Anabel; Columbus.
Rearick, Isabelle; *Aurora, Mo.*
Reed, Gladys Irene; Arkansas City.
Tarr, Grace Edna; Summerfield.
Turner, Rachel Marie; Rosedale.
Weber, Hilda Myrtle; Mayfield.
Winn, Dorothy; *Kansas City, Mo.*

Bachelor of Science in Education.

Bermejo, Fernando V.; *Panay, Capiz, P. I.*
Burgert, Alice Celesta; Lawrence.
Copeland, Helen Gladys; Quenemo.
Croan, Melvin; Lawrence.
Davis, Jeanette Martina; *Kansas City, Mo.*
Fixley, Everett Hayes; *Kansas City, Mo.*
Hiatt, May Farr; *Whitewright, Tex.*
Stark, Stutely Henry; Lawrence.
Wheeler, Dorothy Mae; Fredonia.

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* Assigned to class of 1920.

University Teacher's Diploma.

Battersby, Editha Marie; *Kansas City, Mo.*
Bleakley, Georgina E.; Lawrence.
Carter, Mary Ora; Chanute.
Case, Goldie Ruth; Arkansas City.
Crim, Virginia Dickinson; Lawrence.
Fugate, Josephine; Lawrence.
Gaskill, Grace Helen; Lawrence.
Huff, Bonnie Mae; Preston.
Lowry, Katherine Statler; *Kan. City, Mo.*
Miller, Blanche Helen; Lawrence.
Minger, Ethel Louise; Berne.
Olsen, Mary Carolyn; Lawrence.
Rice, Anita Bertha; Lawrence.
Schafer, Sidonie Pauline; McPherson.
Scott, Anna Louise; Burlington.
Smith, Zuma Zeda; Kansas City.
Steininger, Vera Margaret; *Kan. City, Mo.*

Master of Science in Education.

*Alsop, Inez; Wakefield.
*Jevons, Beulah; Wakefield.
*Lange, William Frederick; *St. Joseph, Mo.*
*Shaw, Wayne Francis, Alma.

Master of Science.

*Alsop, Edith Louise; Wakefield.
*Kirkpatrick, Ellis Lore; *Colo. Spgs, Colo.*
*Korb, John Herman; Lawrence.
Olander, Clifford Paul; Topeka.

Master of Arts.

Bally, Louis Henry; Andover.
Black, Florence; Meade.
*Blair, James S.; Lawrence.
*Brown, Ben Eli; Lawrence.
Buffington, Ralph M.; Ness City.
Byrns, Arthor Grover; Lawrence.
Carman, Justice Neale; Lawrence.
Draper, Eleanor; Oswego.
Faris, Hervey Samuel; Sterling.
*Gidinghagen, Myrtle Rosalie; *Kan. City, Mo.*
*Greenwood, Ellen Grace; *Carthage, Mo.*
Heron, William T.; Burns.
Hilsman, Itasca; *Albany, Ga.*
Hodder, Frederika; Lawrence.
Jones, Gladys; Wichita.
Kirby, Samuel S.; Humboldt.
*Laird, Paul E.; Whiting.
Landon, Charles E.; Mayetta.
*Luby, William A.; *Kansas City, Mo.*
*MacGregor, Helen; *Yankton, S. Dak.*
Maupin, Oakland L.; *Carrolton, Mo.*
*Mellenbruch, Pearl Leslie; *Fremont, Neb.*
Melvin, Virginia; Lawrence.
Mickey, Marie; Morrill.
Nelson, Lawrence Emerson; *Sioux Falls, S. Dak.*
Osterhout, Frederick W.; *Crete, Neb.*
Queen, Minta; Winfield.
Sears, Lloyd Cline; Harper.
Shores, Belva Agnes; Burr Oak.
Stevenson, Edward; Lawrence.
*Thompson, Daisy Ruth; Sterling.
Tester, Allen Crawford; Lawrence.
Timmins, Vaughn Earl; Kansas City.
Van Sandt, Eileen; Chanute.
Walker, Robert Scott; *Chicago, Ill.*
Warner, John Chester; Topeka.
Weltmer, Loren Edward; Smith Center.
Wing, Monta Eldo; Columbus.

Civil Engineering.

Ward, Walter; *King Hill, Idaho.*

Electrical Engineering.

Arlin, Harold W.; *Wilkensburg, Pa.*

Engineer of Mines.

Cote, Homer; *San Antonio, Tex.*
Feitshans, F. Rollins; *Los Angeles, Cal.*

Doctor of Philosophy.

Malin, James C.; *Oklahoma City, Okla.*
Sherwood, Noble P.; Lawrence.

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* Assigned to class of 1920.

HONORS.

Appointments to University of Kansas fellowships for 1921-'22 are as follows:

Astronomy: Christian Thomas Elvey, A. B. '21, University of Kansas.
Bacteriology: Florence Mildred Law, A. B. '21, University of Kansas.
Chemistry: Frederick G. Stubbs, A. B. '21, Sterling College.
Education: Everett Gunn, A. B. '21, University of Kansas.
Geology: Paul Oscar Holland, B. S. '21, University of Kansas.
Hispanic Languages: Dorothy Dawson, A. B. '20, University of Kansas.
History: Iva Hardin, A. B. '21, Washburn College.
Journalism: Alfred Graves, A. B. '21, University of Kansas.
Mathematics: Lillian Ruth Strickler, A. B. '15, College of Emporia.
Psychology: Oakland Maupin, A. B. '20, University of Kansas.
Physics: Burgoyne Griffing, A. B. '21, Washburn College.
Romance Languages: Marjorie Ellen Ishmael, A. B. '21, University of Kansas.
Romance Languages: Winifred Shannon, A. B. '21, University of Kansas.
Sociology: Harold Jackson Matthews, A. B. '21 Baylor University.
Zoölogy: Theodore Sessinghaus Eliot, A. B. '21, Reed College.

The following-named graduates of Kansas colleges have been appointed to University fellowships for the year 1921-'22:

Lavern Wedd, from Baker University.
Ignace Malm, from Bethany College.
Henry W. Taylor, from College of Emporia.
Jacquetta Downing, from Fairmount College.
George Arthur Selleck, from Friends University.
Louis R. Perry, from Kansas Wesleyan.
Paul Rufus Yoder, from McPherson College.
Claud Vincent Cochran, from Ottawa University.
Louise Falls, from Southwestern College.
Ruth Walker, from Washburn College.

The following-named graduates of the University of Kansas have been appointed to scholarships in other universities for the year 1921-'22:

Fressa S. Baker, A. B. '21, Research Fellowship, Women's Educational and Industrial Union, Simmons College.
Ralph M. Buffington, A. B. '18, A. M. '21, Fellowship in Chemistry, University of California.
Albert O. Greef, A. B. '21, Scholarship in Economics, Harvard University.
Otto Haelsig, A. B. '21, Fellowship in Romance Languages, University of Wisconsin.
Jack E. Kollman, A. B. '21, Scholarship in Economics, Yale University.
Ernest R. Mower, A. B., '18, Fellowship in Sociology, University of Chicago.
Ernest Pickering, B. S. in A. E. '19, Plym Fellowship, University of Illinois, for architectural study in Europe.
James Kidder Stewart, A. B. '15, Fellowship in Chemistry, University of Chicago.
Monta E. Wing, A. B. '20, A. M. '21, Fellowship in Geology, University of Chicago.

The following-named graduates of the School of Medicine have been appointed to interneships as follows:

Forrest N. Anderson, Porter Scholarship, 1921, Interne, U. S. Public Health Service Hospital, Kansas City.
Herbert R. Bennie, Interne, St. Vincent's Charity Hospital, Philadelphia.
Robert F. Campbell, Interne, St. Mary's Hospital, Kansas City.
George Edwin Cowles, Interne, New Haven Hospital, Yale University.
Wilfred H. Cox, Interne, St. Francis Hospital, Wichita.
Claude F. Dixon, Interne, Bell Memorial Hospital, Rosedale.
Ralph Emerson, Interne, Bell Memorial Hospital, Rosedale.

Herman E. Friesen, Interne, St. Joseph's Hospital, Kansas City.
Hugh A. Gestring, Interne, St. Margaret's Hospital, Kansas City.
Helen E. Gray, Interne, City Hospital, Nashville, Tenn.
Samuel J. Hurwitt, Interne, General Hospital, Kansas City.
Emsley T. Johnson, Interne, Metropolitan Hospital, New York.
Fred J. McEwen, Interne, Montreal General Hospital, Montreal.
Cline W. McWilliams, Interne, General Hospital, Kansas City.
Carl Newman, Interne, General Hospital, Kansas City.
Paul R. Rannie, Interne, Bell Memorial Hospital, Rosedale.
Roy U. Stevens, Interne, General Hospital, Kansas City.
Edward H. Thiessen, Interne, New Haven Hospital, Yale University.
Thomas J. Walz, Interne, New Haven Hospital, Yale University.
Joseph E. Welker, Interne, New Haven Hospital, Yale University.
Ward W. Weltmer, Interne, Swedish Hospital, Kansas City.

Scholarships have been awarded for the year 1921-'22 as follows:

The Marcella Howland Memorial Scholarship to Ethel Fae Buckle, of Stafford, a junior in the College.

The Eliza Matheson Innes Memorial Scholarship to Adna Mildred Porter, of Strawn, a junior in the College.

The Lawrence Branch of the Association of University Women (A. C. A.) to Cora Pearl Snyder, of Robinson, a junior in the College.

The University Women's Scholarship to Inez Orchel Frost, of Lawrence, a senior in the College.

The Women's Student Government Association Scholarship to Ada B. Reed, Sabetha, a junior in the College.

The Caroline Mumford Winston Memorial Scholarship to Esther Agee, of Troy, a sophomore in the College.

The Frank Egbert Bryant Memorial Scholarship to Grace L. Brown, of Syracuse, a junior in the College.

The Mrs. J. B. Watkins Scholarship to Nellie Frances Allen, of Winfield, a sophomore in the College.

The Daughters of the American Revolution (Betty Washington Chapter) Scholarship to Helen A. Neely, of Lawrence, a junior in the College.

The Dr. G. W. Maser Memorial Scholarship to Georgia Anthony, of Lawrence, a junior in the College.

The David and Rebecca Harvey Memorial Scholarship to Burt Mayberry, of Wichita, a senior in the College.

The Prince Hall (O. E. S.) Scholarship to Hugh Ainsworth Browne of Kansas City, Kansas, a sophomore in the College.

The Lucinda Smith Buchan Memorial Scholarship, awarded by the Alumnæ Committee of Pi Beta Phi, to Phoebe Florence Heaton, of Lawrence, a junior in the College.

The Griffin Memorial Scholarship to George Howard Sipple, a junior in the College.

Prize essays in applied Christianity, Hattie Elizabeth Lewis Memorial:

First prize to John R. Barnes, a senior in the College, for an essay on "A Constructive Immigration Program Based on the Teachings of Jesus."

Second prize to Winifred Shannon, a senior in the College, for an essay on "Christianity's Solution of the Japanese Problem."

Third prize to Florence Bliss, a senior in the College, for an essay on "Industrial Welfare in the Light of the Teachings of Jesus."

Fourth prize to Ethel C. Clark, a senior in the College, for an essay on "Modern Industry Organized on the Principles of Christ."

The Mrs. W. B. Thayer Prize in Architecture, awarded for excellence in architectural design, to Elizabeth Evans, of Lawrence, a senior in the School of Engineering.

The Stewart Drawing and Painting Scholarship to Claud I. Schupp, of Garnett, sophomore in Fine Arts.

The Delta Phi Delta Scholarship to Claude I. Schupp, of Garnett, a sophomore in Fine Arts.

The Rowland Prize, for freshman making most progress in antique work, has been awarded to Claud I. Schupp, of Garnett. Honorable mention given to Winifred Dedrick, of Lawrence.

The George L. Kreeck Music Scholarship, awarded to Mabel McNary, of Garnett, a junior in the School of Fine Arts.

The George Innes Music Scholarship, awarded to Alexander Gatewood, of Kansas City, Kan., a junior in the School of Fine Arts.

The Mrs. John T. Stewart Music Scholarship, awarded to Howard McKenzie, of Lawrence, a sophomore in the School of Fine Arts.

The Mrs. John T. Stewart Art Scholarship, awarded to Claud I. Schupp, of Garnett, a sophomore in the School of Fine Arts.

The Mrs. W. B. Thayer prize for best textile design made in the spirit of a Japanese stencil, awarded to Josephine Fulks, of Turon, a senior in the School of Fine Arts.

The Delta Sigma Pi Scholarship Key, awarded for the highest scholarship standing in economics during the entire College course, to Albert O. Greef, of the class of 1921.

The Chi Omega Sorority Prize, to the freshman woman making the best record in the Departments of Economics and Commerce, to Muriel E. Senor, of Lawrence, Kan.

The Rogers Essay Prize in Journalism to Josephine Nelson, of the class of 1921.

The following-named members of the 1921 class have been elected to Phi Beta Kappa:

Fressa Sample Baker.
Bernice Fay Bamberger.
John Roland Barnes.
Theresa Rosa Baum.
Naomi Marie Case.
Ethel C. Clark.
Ruth Davis.
Josephine Fugate.
Bessie Beatrice Gillis.
Albert Otto Greef.
Marjorie Ellen Ishmael.
Dorothy May Koehring.
Jack Edward Kollmann.
Marion Florence Lewis.
Ethel Louise Minger.
Curtis Nettels.
Dale Howard Puffett.
Mildred Rife.
Edna Rose Rising.
Winifred Shannon.
Nellie Mary Young.

The following-named students have been elected to Sigma Xi:

Harold W. Anderson.
William F. Asendorf.
Ben E. Brown.
John W. Bunn.
William T. Heron.
Edith Gladys Jones.
George Lynn.
Warren P. Mason.
Dwight R. Means.
James D. Stranathan.
Allen C. Tester.
John C. Tracey.
John Chester Warner.
Monta E. Wing.

TABLE OF GRADUATES, UNIVERSITY OF KANSAS, 1873-1921.

	Graduate school.		College.		Engineering.		Law.		Pharmacy.		Fine arts.		Medicine.		Education.		Normal department.		Total degrees granted.	Duplicate degrees.	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.		M.	W.
1873			2	1	1														4	2	
'74				2	1														3	1	
'75			2	4	1														7	4	
'76	1	1	6	2															10	5	1
'77			6	3	1												2	11	23	5	
'78	2	1		3															6		
'79	1		8	5													2	2	18	5	
1880	2	1	6	5	1		8										3	5	31	6	1
'81	2		10	9	1		4					1					2	5	34	11	
'82	1	1	7	3			5										2	2	21	3	1
'83	3		12	7	1		4					2					6	6	41	12	3
'84	2	3	11	14	1		8										4	10	53	11	1
'85	1	1	12	5	1		7										5	9	41	4	5
'86	2		8	11	3		10		3									2	39	6	2
'87	2		15	7	1		12		14			1					4	1	57	11	1
'88	3	2	13	4	5		11		10	1		2					2	3	56	3	6
'89	4	4	10	7	2		16		10		1								54		3
1890	3	2	11	8	9		25		7										64	3	2
'91	3	1	14	7	1		21	1	9	1									58	6	1
'92	6	3	17	5	4		29		9	2		8							83	4	3
'93	10	2	29	12	7		42		10			7							119	10	2
'94	6	3	33	12	6		32		18			2							112	5	2
'95	6		31	22	14		47		7			8							135	8	1
'96	3		39	19	8		33	2	17	3		4							128	15	
'97	8	7	34	31	8		54		23	3	1	9							178	13	6
'98	9	4	43	27	18		68	4	15	1		8							197	12	4
'99	9	1	49	28	5		59	3	13	2	1	3							173	12	1
1900	10	3	51	38	15		80	3	16	4		6							226	19	3
'01	6	9	53	65	13		9		20		2	5							182	17	8
'02	9	7	54	44	21		44		17	2		10							208	7	8
'03	13	8	46	52	21		43	1	20	1		3							208	18	8
'04	10	4	48	55	18		36		21	2		2							197	7	4
'05	12	7	36	69	19		30		10		1	4							188	6	8
'06	10	5	47	69	26		36	1	11	3		6	56	2					272	4	4
'07	15	12	51	60	26		39	1	11	1		6	28	1					251	13	11
'08	18	6	50	55	64		44		14	2	1	6	17	1					278	19	6
'09	17	6	59	84	41		47		14	2		17	17						293	18	5
1910	21	8	71	99	49		50		22			9	19	1					349	18	3

'11	35	11	80	90	54	.....	48	1	9	1	1	16	16	2	2	1	.....	.....	367	15	6
'12	30	17	93	103	51	.....	56	.....	13	2	.....	20	14	.....	4	3	.....	.....	406	37	8
'13	37	18	87	108	58	.....	49	.....	19	.....	.....	18	7	.....	2	3	.....	.....	406	28	11
'14	36	37	102	101	54	.....	63	1	15	1	2	18	9	1	4	5	.....	.....	449	32	28
'15	40	29	102	112	56	.....	36	.....	17	3	.....	17	13	1	2	.....	.....	.....	428	20	10
'16	44	31	81	115	47	.....	42	.....	11	2	.....	5	17	1	2	3	.....	.....	415	25	13
'17	37	28	85	133	54	.....	50	.....	11	.....	2	14	29	1	.....	2	.....	.....	446	41	13
'18	15	18	66	122	26	.....	19	.....	5	.....	1	10	30	1	.....	2	.....	.....	315	23	11
'19	15	11	54	149	26	.....	14	1	.....	.....	.....	8	33	3	.....	2	.....	.....	316	23	6
'20	22	25	122	147	31	1	23	.....	7	.....	3	10	22	1	.....	5	.....	.....	419	2	1
'21	34	18	137	166	59	.....	47	1	5	3	.....	9	28	2	4	5	.....	.....	518	7	1
Totals	566	355	2,003	2,299	929	1	400	20	453	41	17	274	345	18	20	31	32	56	8,850	576	322

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KNOWN OCCUPATIONS OF ALUMNI.

WOMEN.

Educational work:	
Teaching in universities or colleges	65
Teaching in secondary schools	776
Teaching music	82
Farming	7
Home makers, married	565
Library work	25
Medicine	15
Office work	56
Pharmacy	12
Religious work	20
Social service work	27
Study	28
Home makers, unmarried	205
Writing or editing	18
Miscellaneous occupations	132
Occupations unknown	145
Total	2,264

MEN.

Advertising business	25
Banking and investments	75
Chemists	52
Educational work:	
Teaching or administrators in universities or colleges	220
Superintendents, principals of schools	125
Teachers in secondary schools	121
Teaching music	10
Engineering	656
Farming	97
Government service	40
Insurance business	40
Law	959
Manufacturing	16
Medicine	421
Mercantile business	163
Office holding—county, state, judicial	45
Pharmacy	341
Railway business	23
Real state business	31
Religious work	54
Study	86
Writing or editing	61
Miscellaneous occupations	349
Occupations unknown	394
Total	4,315

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